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Mangelsdorf's GARDEN ANNUAL - 1949

CARL MANGELSDORF SEED STORE • ATCHISON, KANS.

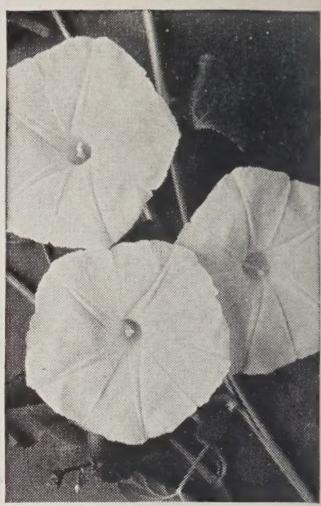
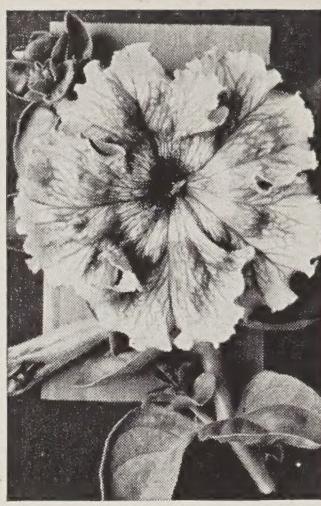
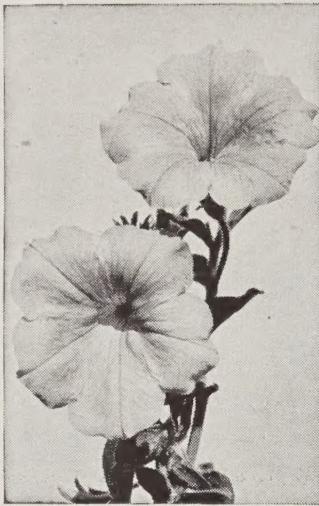
725 Commercial St.

COMPLETE
HOME
GARDENING
GUIDE



The BEST of the NEW Selections

Our offerings of flower seeds, as always, includes the best of the newer introductions as well as the older favorites. Here are a few we recommend heartily.



PETUNIA
"Silver Medal"

1949 All America! Medium large. Rich, pure salmon pink in color. Vigorous. Pkt. 50c.

PETUNIA
"Glamour"

Large single flowers have huge ruffled petals of shining salmon-rose pink. Pkt. 25c.

MORNING GLORY
"Pearly Gates"

Clear, shining white with light cream shading at throat. Often 4½" across. Pkt. 50c.

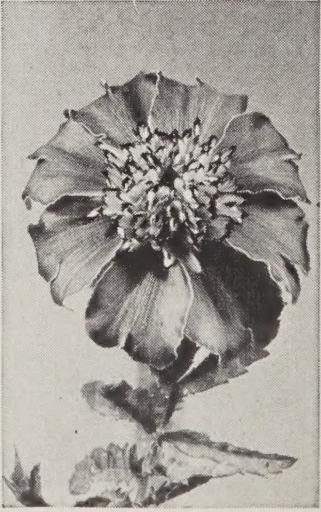
A COMPLETE GUIDE for the home gardener

This Garden Annual is more than just a seed catalog. In addition, it is a complete guide for the home gardener, containing more real, down-to-earth gardening information than any seed catalog you've ever read.

As you will notice, we have crammed this book with facts. You'll find practical answers to hundreds of questions that every seedsman is asked each year.

Whether you're a beginner or an experienced gardener, we're sure you'll find much that is helpful in these pages. You can begin using the book right now as a guide for your planning. Then, later on, use it as a guide to more effective action all through the season.

We're always here to serve you and help you with your gardening problems. Let's get together often!



PETUNIA
"Double Colossal Rose"

Double, 5-inch flowers in lovely rose shades. 1948 All America. Pkt. \$1.00.

ASTER
"El Monte"

A bright crimson super-giant aster. All-American bronze medal winner. Pkt. 20c.

MARIGOLD
"Redhead"

Dwarf marigold with large single flowers of rich mahogany and gold. Pkt. 25c.

CALENDULA
"Persimmon Beauty"

A giant strain. Large, brilliant orange flowers on 12" to 18" stems. Pkt. 15c.

Copyright, 1949. H. B. Law, Chicago



SCABIOSA
"Imperial Giants"

Large, new type with double flowers in many soft colors. Grow three feet tall. Packet, 15c.

Please note that our seed listings are held within sensible limits. You may find other catalogs with larger lists but none with selections more conscientiously made for this particular territory.



CALENDULA
"Sunset Shades"

Large double flowers on tall plants. All of the lovely oranges and golds of sunsets. Packet, 15c.



from YOUR Seed Store

We're proud to present this book as our Spring Greeting to neighboring gardeners. We're sure you'll find it extremely valuable.

Before you go into the fascinating pages that follow, we want to point out that this book is not primarily a mail-order catalog. Rather, it is a message from a good neighbor. It comes from a **complete garden supply center**, which has everything right on hand, ready for you to see and inspect. Unlike the usual mail-order catalog, this book is designed to help you . . .

1. As a pre-season garden-planning guide.
2. As a guide to more effective action all through the season.

We have made it our job to serve (both in our store and by means of this book) the gardeners and growers of our own area. We work always with the needs of our neighbors' gardens in mind. We know from experience exactly what these local needs are. And we choose our stocks carefully to suit these needs.

Don't you agree, then, that it is wise to shop here where **YOUR GARDENING NEEDS AND PROBLEMS** are understood? Why take chances on far-away sources for your garden seeds and supplies?

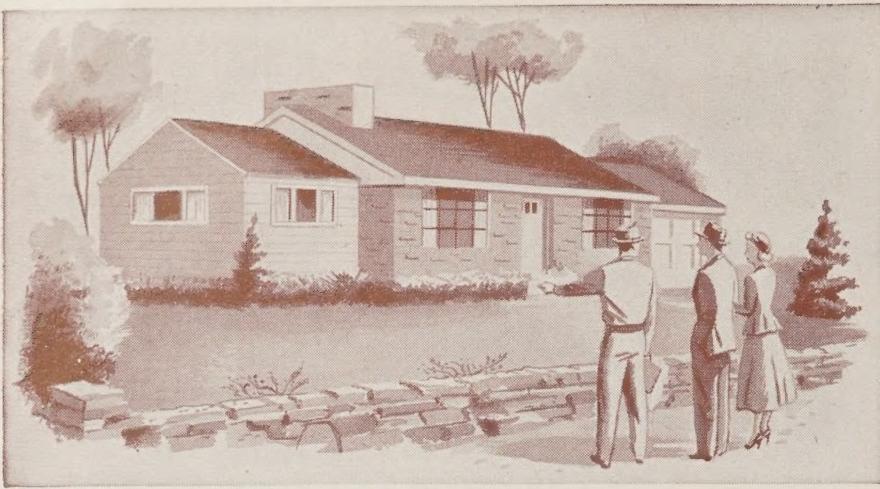
- WE OFFER A COMPLETE, YEAR-ROUND, LOCAL GARDEN SERVICE.
- WE OFFER ONLY GOOD, FRESH SEEDS—PACKET OR BULK.
- WE OFFER A COMPLETE SUPPLY SERVICE.
- WE OFFER CHEERFUL, EXPERT GARDEN COUNSEL.

PRICES: All prices in this catalog are subject to change without notice.

MAIL ORDERS: On mail orders, all garden and lawn seeds are sent postpaid. On all other items, add parcel post charges to your remittance.

NON-WARRANTY CLAUSE: Success with seeds, bulbs, etc., depends largely on weather conditions and proper cultivation, so in accordance with the universal custom of the seed trade we give no warranty, express or implied, as to the productiveness of any seeds, bulbs or plants we sell and will not be in any way responsible for the crop. Our liability is limited to the purchase price of the seed, bulbs or plants.

NOTE—If any of your gardening friends have not received this catalog, and would like to have a copy, just let us know. But please do so early, as the supply is limited. And, incidentally, if you, yourself, have any comments to make on our book (good or bad) we hope you'll let us have them—in person or by letter. We like a pat on the back—and we appreciate constructive criticism, too.



4-WAY SERVICE

For Smoother, Richer Lawns

1. THE RIGHT SEED

Just any seed can't give you the beautiful lawn you want. So we have made a very careful selection to suit the growing conditions of this territory. They are the **RIGHT SEEDS** for the particular needs of your own lawn.

2. THE RIGHT FOODS

Whatever the feeding problems of your lawn are, we have the right plant foods. All-purpose lawn foods or special fertilizers for special conditions. They are all here for you, in any quantity you need.

3. THE RIGHT WEED CONTROLS

The right control can make your lawn weed-free in a matter of a few days time. We have the full range of tested weed controls from which to choose—and can show you how to banish lawn weeds easily, quickly and surely.

4. COMPLETE LAWN KNOW-HOW

Last, but probably most important of all our 4-WAY LAWN SERVICE includes competent advice whenever you want it—advice based on thorough knowledge of the lawn problems of this particular territory. We have the **KNOW-HOW**—and it's at your command!

SPRING LAWN CARE

Early spring care is necessary if you want a really good lawn. Here is the proper procedure for spring lawn care.

RAKE THE LAWN—Remove all of the debris that accumulated on the lawn during the winter. This eliminates any danger of interference with new growth of grass.

APPLY A COMPLETE, BALANCED PLANT FOOD—As soon as raking has been completed, apply plant food as directed by manufacturer. If grass has started to grow, be sure to make application when it is dry, then soak the lawn to wash plant food off the grass blades and into the soil.

RESEED THIN AND BARE SPOTS—Use from three to five pounds of good grade grass seed per 1000 square feet. Pulverize the soil in bare spots, and in seeding, use twice as much seed as used on thin turf. Cover seed lightly

with top soil to protect it and give it a chance to germinate.

ROLL THE LAWN—This operation brings the grass roots into firm contact with the soil so that growth can go on at its best. Clay soils require less rolling than others and should be rolled with a light weight roller. Do not roll the lawn when the soil is wet. Ground should be reasonably dry to avoid too much packing.

This work should be completed early in Spring. It is then that moisture conditions and temperatures are most favorable to the growth of grass.

SUMMER LAWN CARE

During the summer, your lawn requires careful care for best results.

MOWING—Mow frequently but not too close. Set mower to cut about two inches high. Very close cutting, unless done extra-frequently, will injure

the grass by sudden exposure to the sun, after it has been shaded by dense growth. Mower clippings left on the lawn are beneficial, unless in sufficient quantity to smother the grass.

WATERING—A watering program cannot be set down by the calendar but must depend on your judgment. Make sure the lawn actually needs watering, then give it a thorough soaking so that the water penetrates to a depth of six to eight inches. Never sprinkle lightly. This does more harm than good for it tends to make the grass roots come too close to the surface in an effort to reach moisture.

WEED CONTROL—The many excellent, selective weed controls on the market today make weed control simple and sure. Watch for the appearance of weeds in your lawn and eliminate them immediately.

SEEDING—While early spring and late fall seedings are the most productive, don't hesitate to plant in midsummer.

Keep after those thin and bare spots. When you seed in summer, take particular care with watering and weeding.

FALL LAWN CARE

About the time fall rolls around interest in the lawn may be waning just a bit, but another feeding with a complete, balanced plant food and another seeding of bare and thin spots at this time will produce marvelous results next spring and summer.

Fall Is A Good Time To Make A New Lawn

During the moderate fall weather, grass seed germinates quickly and makes vigorous growth. Also, few weeds germinate in the fall, thus permitting the lawn to establish itself without interference.

Follow these six steps in making a new lawn:

1. Spade or plow the area to a depth of six or eight inches. Pulverize the soil thoroughly.
2. Apply a complete, balanced plant food as prescribed by the manufacturer.
3. Work the plant food into the top few inches of soil.
4. Sow a good grade of grass seed at the rate of five pounds per 1000 square feet. To secure even distribution, apply one-half of the seed crosswise, the other half lengthwise.
5. Roll the seeded area to imbed the seed in the soil.
6. Water thoroughly, using a fine spray. Keep moist by daily sprinklings until grass is established. Then soak to a depth of five or six inches once or twice a week.

LAWN SEEDS

... from a "home" seedsman who knows the lawn needs of this territory!

The only way to thick, lasting turf is to sow a mixture of true turf grasses suited to your soil and climatic conditions, and the only way to get such a mixture is to depend on a seed specialist who knows your territory.

Astoria Bent

Produces numerous root stocks which spread underground and throw up new shoots, making a very thick turf. This Bent has a good color and is excellent for lawns and putting greens. Does not require as much cutting as Creeping Bent.

Seaside Bent

A true creeping Bent. The plant is dwarf, and multiplies rapidly by sending out runners in all directions. With proper watering and care, it makes a strong, enduring turf. If damaged it heals over promptly.

Chewings Fescue

A superb grass to grow in rather shaded areas and even on fairly acid soil and under other unfavorable conditions. Plants grow low, make a dense turf. Often used for putting greens and fairways.

White Dutch Clover

Although not a grass, White Clover is very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Succeeds best on moist ground or during wet season.

Our Finest Lawn Mixture

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All of the grasses in it are fine-bladed and deep rooting. There just isn't a better combination than this for the lawns of this territory.

Our Special Shade Mixture

Our shade lawn mixture is a scientifically developed blend of top quality, shade-enduring grasses and clovers. We've been getting excellent results with it for years and believe it will produce fine results anywhere that grass can be made to grow.

Kentucky Blue Grass

Produces a deep dark green lawn of close thick turf. Maintains its green color until late in fall. Roots are deep, and plants are very hardy.

Domestic Rye Grass

A quick-growing annual, valuable in lawn mixtures as a nurse crop, to keep lawn green while better, slow-growing varieties are becoming established. Succeeds well on almost any soil.

Perennial Rye Grass

A quick growing grass, most suitable for mixtures. Succeeds on almost any soil not water sogged.

Red Top

Particularly suitable for wet, low spots, as it stands wet weather or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where Blue Grass fails—and therefore makes an excellent supplement for it.

Other Grasses

Besides the lawn grasses listed here, we can also supply just about any other grasses you may need. We carry a complete line of all varieties that can be successfully grown in this part of the country. Just tell us what you want!

How Much Seed?

Skimpy seeding is costly in the long run. Plant enough to get a thick, heavy mat of grass and you'll need far less re-seeding. The wise minimum for new lawn planting may be figured from this table:

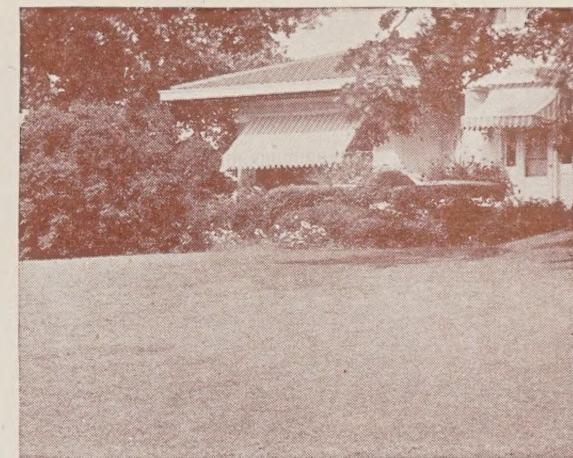
Size of plot	Square feet	Amount of seed
10x20	200	1 lb.
20x50	1,000	5 lbs.
20x100	2,000	10 lbs.
50x100	5,000	25 lbs.
100x100	10,000	50 lbs.

For re-seeding, use at least half the amount.

What Kind of Seed?

Climate, amount of sun or shade, soil conditions, drainage, slope, all must be considered.

That's why we suggest that lawn seed should be bought from the seedsman who can weigh all these factors and help you to the right answer.



FOR SUNNY PLOTS

We offer you a fine mixture of sturdy, hardy grasses that thrive in locations exposed to the blazing sun. Because weed control is more difficult in sunny places, our special mixture contains vigorous grasses that will starve weeds out and help give you the weed-free lawn you desire.



FOR SHADY SPOTS

Wherever shade makes it difficult to obtain a good lawn, our special shade mixture is heartily recommended. We have chosen excellent quality, shade-enduring grasses and clovers... and have blended them into a mixture that will give you surprising results.



FOR SPECIAL USES

We have just the right grass seed for every purpose. We can give you special deep-rooted grasses for the sloping lawn, the ideal grasses for planting on golf courses, parks, estates, cemeteries... or for any other special use. Just tell us what you want.

**Ask for our latest
COMPLETE LIST
of varieties and prices
including many not listed
here.**



FARM SEEDS

ALFALFA—The No. 1 soil builder and restorer. We carry a full range of varieties, adapted to this territory.

MILLET—An excellent food for stock and poultry. Also a good green fodder and hay plant. Chokes out weeds.

RAPE, DWARF ESSEX—Highly recommended for pasture for sheep, cattle and hogs. Makes splendid green feed for poultry. Plant early spring in moist soil.

SORGHUMS—An excellent soiling crop furnishing succulent feed for milch cows. A large yielding fodder crop. A good range of varieties.



ALFALFA (A)

Sweet, Bur, Hubam

Clovers

Size Retail

1 bu. each...\$.50

2½ bu. each.. 1.00

SOYBEANS (S)

Size Retail

2 bu. each....\$.30

5 bu. each.... .50

25 bu. each.... 2.25

30 bu. each.... 2.95

(6-5 bu. cans)

BEANS (D)

Navy, Pinto, Wax,

String, Kidney and

Great Northern

.1 bu. each....\$.35

PEANUTS, COW PEAS (E)

2 bu. each....\$.30

5 bu. each.... .50

30 bu. 2.95

(6-5 bu. cans)

LUPINES (All Varieties)

100 lb. Size (Inoculated up to 100 lbs. seed) ea. \$.50

GARDEN SIZE—Peas, Beans, Sweet Peas, Lupines, Lima Beans and Edible Soybeans. Enough for 8 lbs. seed—Price 15c each.

SOY BEANS—The crop of many purposes. Excellent for hay, ensilage, grain, and soil improvement. Ground soy beans are as good or better than Oil Meal for mixing with grains for dairy ration.

VETCH—A great producer for hay, pasture or silage. Good cover crop and soil builder. Needs only moderate moisture, grows in almost any soil.

CLOVERS

Alsike—Very hardy. Does better on moist land than other varieties of Clover. Suitable for hay or pasture. Good bee plant.

Medium Red or June—The most valuable of the clover family. Makes two crops the second year. Does not exhaust the soil but enriches it.

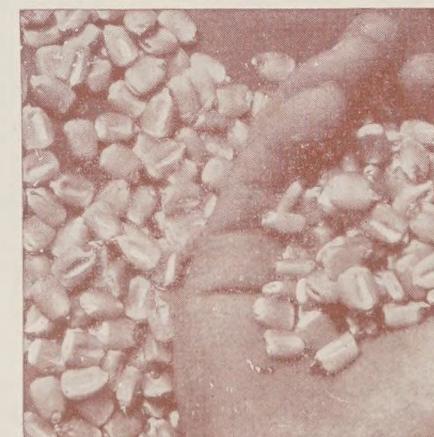
Mammoth Red—Also called "Pea Vine" Clover. Grows large and coarse, often used for plowing under to enrich soil.

White Dutch—A very hardy creeping clover, adapts itself to great variety of soils and climates. Good pasture for sheep or cattle; fine for bees.

White Sweet (Biennial)—Excellent for pasture, hay and a soil improver. Drought-resistant.

GRASSES

Alta Fescue — New all-purpose, all-
allocation grass. Highest yielding grass



for pasture-hay-silage. Grows on wet or dry, acid or alkali soil. Takes a year to establish but lasts 20 years or more.

Brome Grass—Drought defying, resistant to frost and extreme heat alike. Very early, and stays green late in fall. Produces abundant pasture and enormous crops of high grade hay.

Kentucky Blue Grass—Excellent for pasture for all kinds of stock. Very hardy. Roots form tough sod. Requires two years to get well started, so often sown in mixtures with other grasses.

Orchard Grass—Hardy, quick-growing. Gives large yield of excellent hay. May be cut several times during season. Will grow in shady places.

Reed Canary Grass—Especially suited to swampy, over-flowed lands; but thrives on uplands where moisture is abundant. Makes splendid pasture, very early; lasts to late fall.

Red Top—Valuable for most soils. A good permanent grass. It should be grazed close. Grows successfully on alkali lands where other grasses fail.

Rye Grass, Domestic—Fast growing one-year grass. Yields abundantly and matures all in one season. Helpful as a nurse crop to other grasses.

Rye Grass, Perennial—A good pasture grass. Grows quickly and withstands drought reasonably well.

Sudan Grass—The ideal emergency hay and pasture crop for late planting. Never plant until ground is warm.

Timothy—Unsurpassed as a crop for hay. Relished by all kinds of stock, especially horses. Not suitable for permanent pasture. Should not be cut too early or pastured too late in fall.

SEED POTATOES

Our certified stocks are the most economical you can plant. They reduce your hazards to a minimum and give you bigger production with fewer culs.

SEED CORN

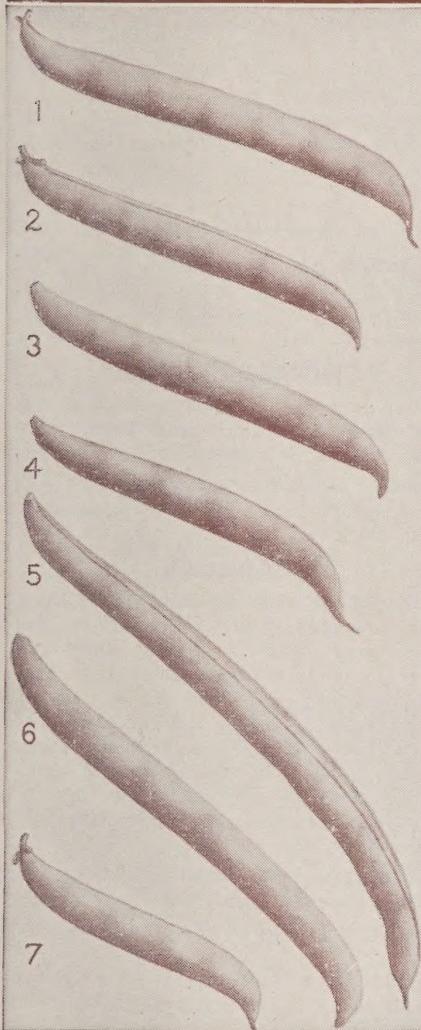
Our selection of seed corn is built on an intimate knowledge of the kinds that do best in this locality. We have the best kinds for your particular soil and climate.

More and more, the problem of seed corn is becoming localized as new hybrids are released. It is important to have those hybrids best fitted to your growing conditions.

We have the right hybrids for you! Ask about our selection . . . especially adapted to this region.

VEGETABLE SEEDS

Carefully selected
for your territory!



BEANS

1. Bountiful
2. Stringless Green Pod
3. Tendergreen
4. Giant Stringless Green Pod
5. Kentucky Wonder
6. Kentucky Wonder Wax
7. Golden Wax, Improved.



It's just plain horse
sense to buy gar-
den seed from the
seedsman—and
nowhere else!

ASPARAGUS

A hardy perennial; will bear over 20-year period if properly cared for. We recommend purchase of ASPARAGUS ROOTS rather than seeds, as roots produce crop 2 years earlier. If seed is used, sow thinly in drills in early Spring. Cover to $\frac{1}{2}$ " depth. Thin plants to 6 inches apart and when a year old transplant to heavily enriched beds. 1 oz. sows 60' of drill.

Mary Washington (fr)—Thick tall green spears with purple tops. Highly rust resistant. Rapid growing. Tender.

BEANS

Green Podded, Dwarf or Bush

Sow in rows $2\frac{1}{2}$ ' to $3\frac{1}{2}$ ' apart. Plant seed $1\frac{1}{2}$ " to 2" deep and 3 to 4" apart. Do not plant until danger of frost is past. Press soil around seeds. Thin young plants to about 6" apart. Keep cultivated until plants blossom. (DO NOT CULTIVATE when blossoms are at prime or when plants are wet with dew. Keep vines picked to insure a longer bearing period.) Plant every two weeks.

Black Valentine Stringless (fr)—Hardy, early maturing, very productive. Pods dark green, 6-6½ in. long, brittle, smooth, stringless. Seeds black. 49 days.

Bountiful (fr)—An early, heavy-yielding variety. The leading flat podded bean for market and home use. Flat, light-green, stringless, but slightly fibrous pods of finest quality. 47 days.

Stringless Green Pod (fr)—Large, sturdy plants. Meaty round pods, brittle and strictly stringless. Medium green pods, oval, yellowish-brown seed. 54 days.

Giant Stringless Green Pod— $5\frac{1}{4}$ " pods almost round. Meaty, stringless and brittle. Medium Green. 53 days.

Plentiful—Productive, early. Flat, medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. All-America Bronze Medal 1939. 51 days.

Tendergreen (fr)—Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days.

Wax Podded, Dwarf or Bush

Improved Golden Wax (fr)—Small erect plants, moderately productive. Straight, thick, flat pods, creamy yellow and stringless. 51 days.

Pencil Pod Black Wax (fr)—Stocky, large, strongly productive plants. Pods, golden yellow, tender, stringless. 55 days.

Vegetables for Freezing

The symbols (fr) following the variety names indicates vegetables suitable for home freezing.

Sure Crop Stringless—Handsome, rich yellow pods. Sturdy, brittle. 6-6½ in. long. Strictly stringless. 53 days.

Beans, Pole

In warm ground, set poles 4' to 8' long, slanting a bit to the north in rows 4' apart. (Extending north and south the poles will be 3' apart in the row.) Plant 5 to 8 beans about 1" deep around each pole. When growth is sufficient thin to four plants.

Caution: To avoid spreading plant diseases, do not cultivate or pick when plants are wet.

London Horticultural or Cranberry—Hardy, good climber. 5" pods flat-oval, dark green when young, splashed with red. Slightly curved, stringless, little fiber and very fleshy. 70 days.

Kentucky Wonder (fr)—Strong climber long-bearing.

Kentucky Wonder Wax (fr)—Vigorous, good climbing plants, waxy-yellow pods, flat and nearly stringless. 68 days.

Lima, Dwarf or Bush

Plant in dry, warm ground. Make rows 2' apart and drop beans 6" apart in row. Cover with 1" of soil. Can also be planted in hills, 3' apart one way and 2' apart the other way. Use 4 to 6 beans per hill.

Burpee's Improved Bush (fr)—Best of flat seeded bush limas. Pods contain four or five large beans of excellent quality. 75 days.

Fordhook Bush (fr)—Straight pods with plump, large beans, excellent quality. Henderson's Bush—Know as Baby Lima or Butter Bean. Plant small, early and bushy. Very productive. 65 days.

Continued on Page 8

Beans

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢
EXCEPT WHERE OTHERWISE NOTED

OLD GARDENER SAYS . . .

One excuse for growing your own vegetables (beside the fact that they cost you less) is that you can never buy them as good as you can pick them from your own garden.

Don't be conservative when it comes to using your own produce. It costs you so little and you get so much that it will pay you to try some interesting combinations. A special favorite with many is a mixture of half Swiss Chard and half New Zealand

Spinach. Somehow this tones down the "earthy" taste that some object to in chard.

And have you tried lettuce cooked with young peas? A wonderful combination. Young green onion tops with peas is another. Speaking of green onions, try cooking them in bunches like asparagus and serving with Hollandaise sauce. A real treat for epicures!

And, if you have a freezer, try freezing clean washed mint for winter use in fresh mint sauce. Remove flower buds and coarse stems before freezing.

**All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED**

In bulk at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.

BEANS, Continued

Lima, Pole

Follow same plan as for other pole beans but plant seed two weeks later. King of the Garden (fr)—Flat, smooth pods with four or five white, large flat beans. 88 days.

BEANS, SHELL

Navy—Small seed, almost round and white. Hardy, prolific. Most popular for baking. 95 days.

Red Kidney—Pods 6-7 in. long. Flat large beans, pinkish red to mahogany in color. Rich flavor. 95 days.

BEETS

Deep, rich sandy loam produces finest beets. As soon as ground can be worked sow in drills 18" apart and press soil firmly over seed. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart. Plant every 10 days or so.

Crosby's Egyptian (fr)—Widely grown for early beets. Flattened globe shaped roots with small tap root. Excellent quality, tender and sweet. 60 days.

Detroit Dark Red (fr)—Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red—sweet and tender. 68 days.

Early Wonder—Early variety. Semi-globular, tender, blood-red. 58 days.

BEETS, STOCK

(Mangel Wurzel)

Sow seeds in early fall and spring in rows 2½' to 3' apart. Later thin to 10" apart.

Mammoth Long Red—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge. 110 days.

SWISS CHARD

Requires about same treatment as beets. Cultivate frequently. Leaves

may be gathered during summer and fall. New ones will grow quickly.

Lucullus—Most popular chard. Upright in growth with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days.

Rhubarb Chard—Heavily crumpled leaves, dark green with a translucent crimson stalk. Easily grown, everywhere. A different, tasty, delicious flavor—cook stalks and leaves together for a new taste thrill. 60 days.

BROCCOLI

Plant and cultivate like cabbage and cauliflower.

Italian Green Sprouting (fr)—Plant bears a succession of sprouting heads about 5 in. long, which, if kept cut will be replaced by others for 8 to 10 weeks. 55 to 65 days.

BRUSSELS SPROUTS

Easy to grow wherever conditions are favorable for late cabbage, and requires same culture. As sprouts begin to form remove lower leaves so that all nourishment sent to lower stem will be forced into the sprouts.

Long Island Improved—Compact, uniform dwarf size plants. Cabbage-like sprouts 1½-1½ in. in diameter. One of the most dependable varieties. 90 days.

CABBAGE

Sow seeds in drills 6" apart across the bed, dropping the seed 5 to 6 to the inch. Firm soil after covering, then water thoroughly. Keep beds moist but not soaking wet. Seeds germinate 3 to 8 days depending on temperature. Transplant to open ground when plants have made fourth pair of leaves. Set out as soon as frost danger is past. Use plenty of good commercial fertilizer. Cultivate frequently, every 5 or 6 days until cabbages are large. For winter storage, stand plants upright in cold cellar, with roots in sand. Slight freezing will not harm cabbage.

Yellows Resistant Varieties

Yellows Resistant Marion Market—Large, firm round heads, used for early kraut. A development from Copenhagen Market. 7-in., 4-lb. heads. 75 to 80 days.

Yellows Resistant Wisconsin Hollander—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head. 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

Copenhagen Market—Excellent, early short season type. Short stems, 6½-in., 3½ to 4-lb. heads. 65 to 70 days.

Early Jersey Wakefield—Pointed heads, small and firm. Earliest pointed variety. Plants compact. 62 days.

Goldren Acre—Extra early variety producing uniform well-balanced head. Weighs about 3-lbs. Excellent quality. 65 days.

Late or Winter Varieties

Danish Ball Head or Hollander—A widely used late type. Deep, round, hard compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

Premium Late Flat Dutch—Heavy yield variety. Very large heads, flat and solid. Leaves light gray-green. 100 days.

Red Varieties

Mammoth Red Rock—Best of the red cabbages. Hard, round, purplish-red heads. Good keeper, 6 to 8-in., 7 to 8-lb. heads. 100 days.

CHINESE CABBAGE

An easily raised succession crop. Set out in rows which have been occupied by earlier vegetables.

Chihili or Improved Pekin—Dependable, early. Solid, tapered heads, 3 to 4-in. thick. 18 to 20-in. long. 75 days.

CARROTS

Use sandy loam enriched by manure the previous year, if possible; but any good land if deeply and well worked will produce a good crop. Sow seed as early as ground can be worked. Sow seed ½" to 1" deep in drills 16" to 18" apart. Press soil firmly above seed. When plants appear use cultivator or wheel hoe and thin from 2" to 6" apart, according to type. Keep cultivated.

Chantenay, Red Cored (fr)—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days.

Danvers Half Long—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

Improved Imperator (fr)—Fine-grained, tender. Rich orange, indistinct core. Roots smooth, tapered to semi-blunt. 77 days.

Continued on Page 10



World's greatest
bargain is good
garden seed!
Where else so
much for so little?

OLD GARDENER SAYS . . .

Even though most folks have trouble growing it, Chinese Cabbage is a crop worth considering. It's a triple-treat vegetable. Eat it fresh as a salad, cook it as greens or use it raw as a relish. And it's one salad crop you can store for winter use, to take the place of perishable lettuce.

The trick in growing it is timing. Don't seed it before July 1st. If you plant it too early, there is some mechanism inside the plant that forces it to produce flowers and go to seed instead of heading up. But if

you wait until after July 1st, it will form a firm, tight head instead.

Another difficulty is that plant lice or aphids love this plant, as do certain chewing insects. Getting at these pests in the folded leaves is a hard problem. The trick is to go down the row with a light dust of rotenone (which, by the way, kills both sucking and chewing insects) . . . not enough to kill but just enough to force the pests out on top for air. Then go down the row again five minutes later with a heavy dust or spray and you'll get 99% of them.

How? When? HOME GARDENING GUIDE Where? Why?

PRACTICAL ANSWERS TO EVERY-DAY QUESTIONS

This is a Garden Annual that you can keep right on using long after you have bought and planted your seed!

It's packed with practical, down-to-earth facts that every gardener needs to know. Even old-timers will find information that is mighty helpful.

You'll find all of this valuable information listed under the "How? When? Where? Why?" headings all through the HOME GARDENING GUIDE. Read it carefully, keep it handy and use it to advantage all through the year.

Planning before planting

Don't expect your garden to grow itself. Plan the crops you want and the amount of each. List them and study the planting and maturity time. Determine the amount of space you will need for the early crops that need cool weather and the time that space may again be used for hot summer crops.

Check your soil. Do you need fertilizer, humus, inoculants, seed disinfectants? Are your tools in good condition? Check back over your experiences of last year. Was there something lacking in the kinds of crops, supplies or tools? Plan now to avoid repeating any of these old mistakes and place your order for needed items early.

If you still have questions unanswered after reading this book, come in and let's talk them over. Take advantage of our wealth of experience . . . It's yours for the asking.

How Much to Plant

Figure exactly the number of feet of row to plant. Consult the chart on page 18.

Study the chart on page 18. This will tell you how far apart rows should be, how long each crop takes to mature, and how much space you will need to provide the vegetables your family likes. After you have taken into consideration the crops you want to grow, make a rough sketch showing the location of each crop, with catch crops, intercrops, succession crops.

Decide how many times during the harvest season you want to eat a certain crop, how much of that crop you ordinarily serve to your family, and plant accordingly. Thus, if you like beans, and if you want to serve them twice a week, 1 pound at a serving, note that a 50 foot row will produce about 20 pounds. Since beans produce freely for about three weeks, a 20 foot row should give you all the snap beans your family cares to eat during that time. Why tend 50 feet of row when 20 will do?

Succession Seeding

DON'T work more land than you need to. Conserve your energy by intercrop-

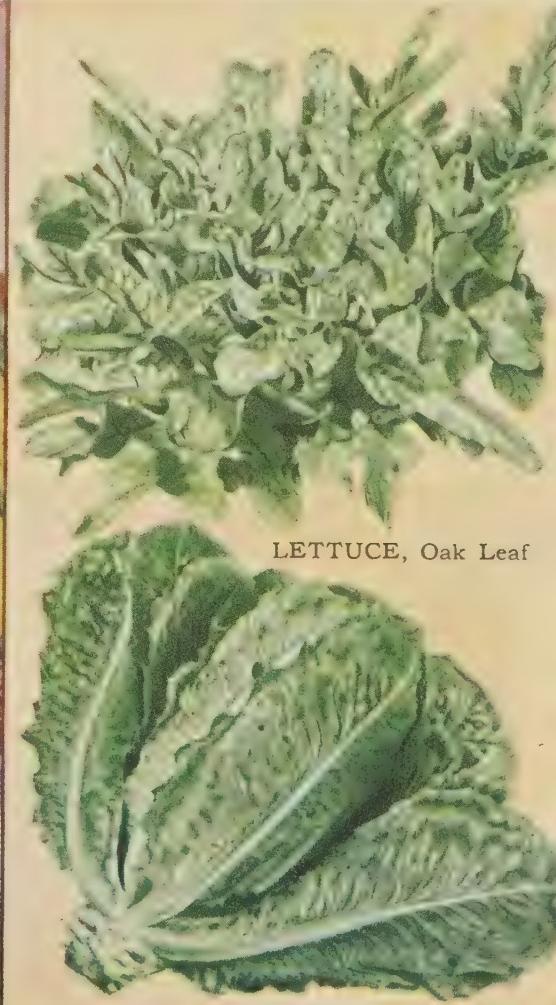
ping, catch cropping and succession cropping. In intercropping, short season crops are grown between slower growing plants (i.e., plant early lettuce between rows of tomato plants that won't need the space until after the lettuce is eaten). In catch cropping, plant an early crop **before** the main crop is planted. In succession cropping the main crop comes first (i.e., snap beans to be followed by late turnips). In this way you make better use of space, cut down the number of rows to tend, and make better use of water and fertilizers.

In the smaller garden, concentrate on vegetables that lose quality most rapidly when shipped any distance—delicately flavored green beans, summer squash, early cabbage and leaf lettuce. Unless you have plenty of room, better leave late cabbage, dry onions, winter squash and potatoes to commercial gardeners.

Before You Dig

Before digging or plowing the garden, apply 2½ to 3 lbs. of balanced fertilizer over every 100 sq. ft. of garden. Divide fertilizer into two lots, sowing one with the wind and the other across the wind. Or, better yet, use a fertilizer spreader.

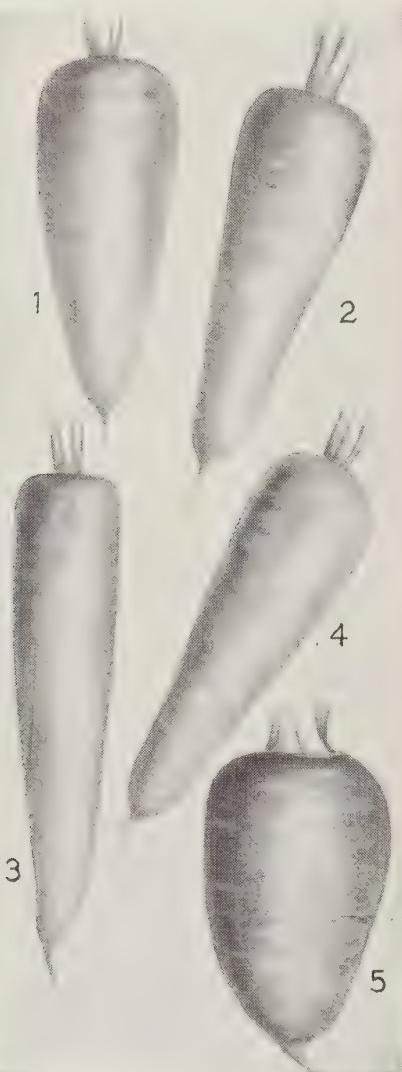
Next, make a mud pie test. Pick up a handful of soil and pat it lightly into a mud pie or cake. If this can be crumbled into loose soil easily, the soil is all right to dig. If it hangs together, it is too wet: don't dig.



Corn

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢
EXCEPT WHERE OTHERWISE NOTED



CARROTS

1. Chantenay Red Cored
2. Danvers Half Long
3. Improved Imperator
4. Nantes Improved Coreless
5. Oxheart

CARROTS, Continued

Nantes Improved Coreless (fr)—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

Oxheart or Guerande—Excellent for shallow soil, easy to harvest. Chunky tender and sweet. Bright orange. Keeps well. 72 to 75 days.

CAULIFLOWER

Packet 25c

Needs rich soil and abundant watering. Cultivate same as cabbage but protect heads from sunlight to insure the prized white curd. This is done by gathering leaves together loosely as soon as heads begin forming, and tying them at the top.

Early Snowball (fr)—Best and most widely used early variety. Medium, firm compact heads of fine flavor. 6-7 inches in diameter. 55 days.

CELERIAC

Large Smooth Prague—(Turnip rooted celery). Smooth spherical roots. 2 to 3-in. thick. 120 days.

CELERY

Sow late spring for fall maturity. Have shaded beds and cover seed $\frac{1}{4}$ ". Transplant when 6" high. Keep soil well fertilized and moist. Crop matures in cool weather of autumn.

Giant Pascal—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white. 135 days.

Golden Self Blanching, Dwarf—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanches readily. 120 days.

Wonderful or Golden Plume—Early, medium plant with compact, full heart. Blanches easily to golden yellow. 112 to 115 days.

COLLARD

Sow seed heavily and transplant when 4" high; or sow in rows in permanent beds and thin to 16" to 18" apart when plants are well started.

Southern or Georgia — An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days.

SWEET CORN

Do not plant until all danger of frost is past. Be sure soil is well worked and dry—then drop 6 kernels of corn in a shallow hole made with the corner of the hoe. Cover each "hill" with about 1" of fine soil pressed down firmly. When 6" high, thin to three or four plants in each hill.

Hybrids

We offer Hybrid Sweet Corn varieties known as best for your garden—the finest that can be procured anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want. Talk it over with us.

Golden Cross Bantam (fr)—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 85 days.

Ioana (fr)—1940 All-America. Ears 7½ to 8-in., well filled with 12 or 14 rows of deep medium narrow, light yellow kernels. Highly resistant to drought and bacteria wilt. 87 days.

Marcross (fr)—An early wilt-resistant yellow hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days.

Stowell's Hybrid Evergreen — White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

Open-Pollinated

Bantam Evergreen—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

Black Mexican—Pure white corn with purplish-black seed. Ears are 7 to 8 in. long, 8 rows. Cylindrical straight rowed. 88 days.

Country Gentleman or Shoe Peg (fr)—Prolific late variety. Favored by canners. Irregular kernels, very deep, sweet. 93 days.

Golden Bantam (fr)—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull.

Continued on Page 12

OLD GARDENER SAYS

The harvesting of vegetables begins with planting. Try to time your planting so that the main part of the crop will just begin to mature about the time they are to be eaten or stored. This means carefull planning so you won't have a long row of bean plants, for instance, that is past its prime, with tough woody pods hardly fit to eat. A short row planted every few days will mean fewer plants to weed and cultivate and better eating on the table.

For winter storage, time your plantings so the crop will be at its best, fully mature but not tough. For canning or freezing, the crop ought to be just a little younger than this.

And speaking of storing vegetables, try to handle them like eggs in harvesting. Don't throw squash, potatoes, beets and carrots into the baskets or other containers. Lay them in instead. It will pay in better keeping and better flavor.



Want more sweet corn for more weeks? We can give you the combination that turns the trick.

Poor Soil

DON'T plant in water-logged or poorly-drained soil. If your garden doesn't drain readily, find another plot or provide tile drainage. No soil will grow good root crops that dries out hard and compact. If the cost of conditioning such soil is too high, as in plots to be used only one year, omit carrots, beets, etc., and concentrate on leafy vegetables and those that produce above ground, such as tomatoes, peppers, etc. You can remake such soil by adding well-rotted organic matter. This may be old manure, spent mushroom manure, peat moss, rotted compost, etc. If ashes have weathered for at least a year, they will help break up clay also. So will an application of lime or gypsum. Light sands can also be improved by adding liberal amounts of organic matter.

Extra Feeding

DON'T DEPEND on organic matter only for feeding your vegetables. While it has some fertility value, it won't provide enough. Remember that vegetables growing in a garden are in an artificial environment. You don't want natural growth; you want crops to mature as soon as possible, and this means extra feeding with suitable fertilizers. Properly used, chemical fertilizers furnish plant food at lowest cost in most readily available form.

Make provisions for extra feedings through the summer.

Correcting Acid or Alkaline Soils

Acid soil conditions may be corrected by

the use of lime, preferably as ground limestone, which has a longer effect. However, do not apply lime unless it is really needed. A good check on the need for lime is the way your beets grow. Usually a soil that will grow good beets contains enough lime. If you have trouble with beets, and clovers do not grow well in your vicinity, it will pay you to have your soil tested. (We have soil test kits that will show you the right amount of lime to apply.)

Alkaline soil conditions may cause bleaching and stunting of plants. This can be remedied by using soil sulphur or gypsum. Here, again, caution should be used to find out, by soil tests, the right amount to use for your particular soil and crops.

Most garden plants do best in a soil that is neither strongly alkaline or acid but nearly neutral. A soil test of pH 6.0 to 7.0 is ideal, for most crops.

Spading the Garden

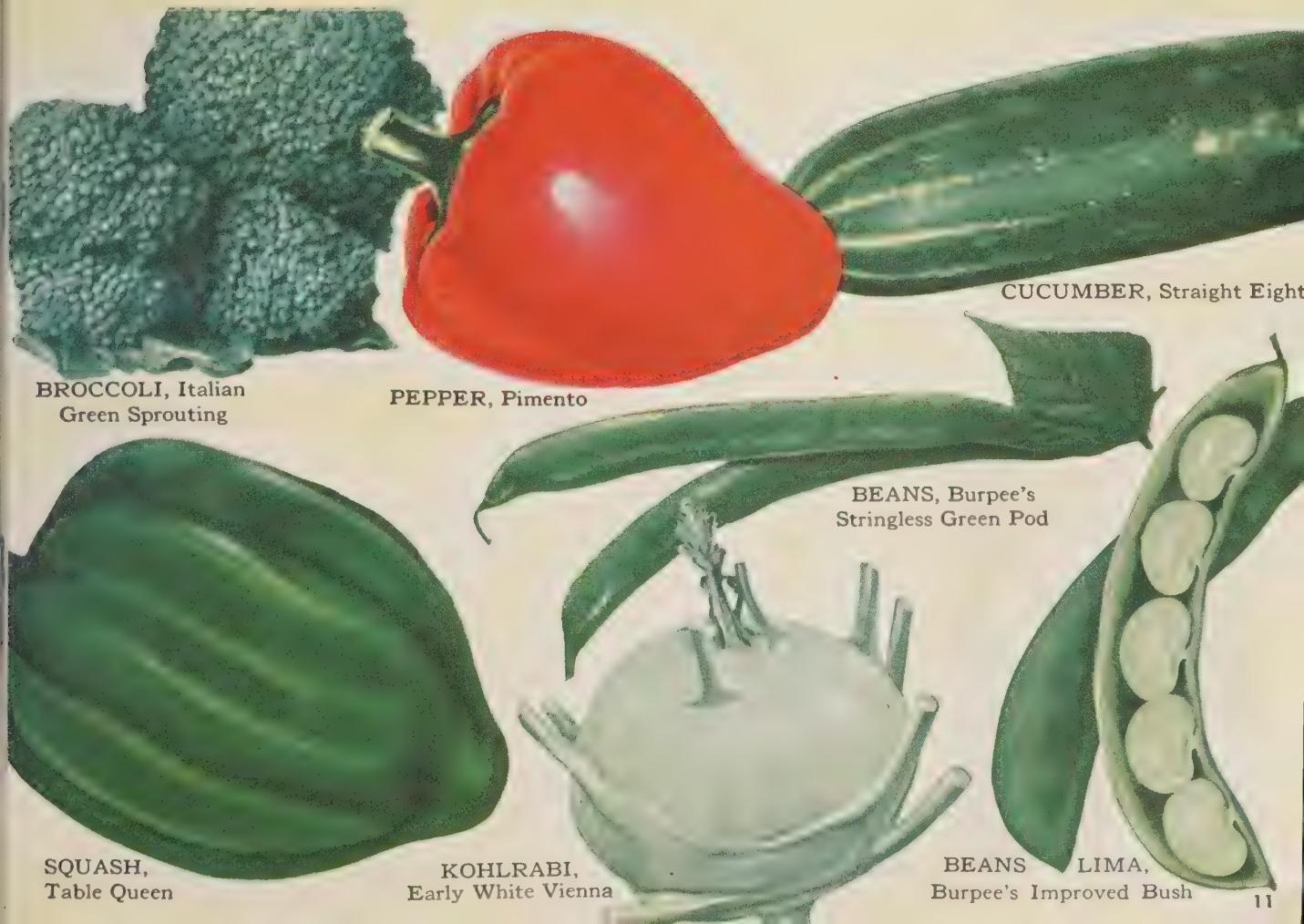
The average home garden can be dug easily in five or six days, if done in stages. Usually a hand-dug garden is in better condition than one that has been plowed. Start by digging a trench the depth and width of a spade. Wheel the dirt from this trench around to the other side of the garden, where you plan to finish digging. Throw the dirt from succeeding rows into the trench made by the previous spade cut. The last cut is then filled with the earth wheeled from the first.

Spading vs. Plowing

Many a garden plot has been ruined by a heavy tractor that worked it too wet.

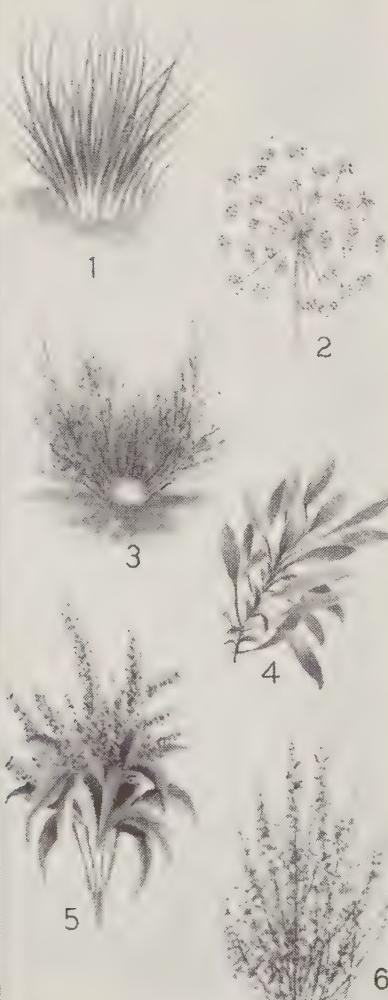
Be sure your soil passes the mud pie test before you allow a plowman to touch it. Too often, regular farm equipment is too heavy for working garden soils. DON'T work your soil too much. Remember that after you finish digging or plowing your soil has been fluffed up and loosened, so plant roots can grow through it easily. Every time you go over it you are packing it down, making it less suitable for growing plants. Most inexperienced gardeners overdo surface preparation by trying to work the surface into a fine dust. Clods should be broken up, stones raked off and trash removed, in sensible limits. If the soil was dug at the right mud pie point, most lumps should break up without too much additional cultivation.

Use a cord or garden line stretched across the garden in laying out rows. Crooked rows increase the work needed. Also, they waste space. Open furrows for sowing seed by running the end of a hoe handle along a taut cord. For most seeds this should not be more than $\frac{1}{2}$ " deep; 1" deep for peas, beans, corn, etc. Fine seeds should not be covered more than $\frac{1}{4}$ " in the furrow. If your soil cakes or crusts badly, use clean sand, or a mixture of 50-50 sand and leaf mold, or peat moss, to cover the seed. This loose mixture does not cake and allows the tender seedlings to break through readily. Where it is important to catch light rainfall, corn, peas, beans, etc. can be sown at the bottom of a 3" to 4" furrow, but should not be covered with more than 1" of soil.



**All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED**

In bulk at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.



HERBS

1. Chives
2. Dill
3. Fennel, Sweet
4. Sage
5. Sweet Basil
6. Thyme



If you're not sure
about your plant-
ing, just ask us.
Many a good gar-
den plan starts in
our store.

SWEET CORN, Continued

Stowell's Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. Good late variety. 93 days.

POP CORN

South American or Yellow Dynamite—Rich, creamy, yellow, smooth and round kernels, which pop double size of others. Ears 8 to 9-in. long. Vigorous grower. 115 days.

New! Hybrid Pop Corn

You will be delighted with the new hybrid pop corn. Yields are terrific; every plant produces corn with satisfying of big ears, with uniform popping ability. **ASK US ABOUT THESE NEW HYBRIDS!**

CUCUMBER

Select soil fully exposed to sun and enrich thoroughly with fertilizer. Seeds should be planted not over 1" deep in hills from 3' to 5' apart each way. Sow 15 to 20 seeds to a hill. When plants crowd thin to 3 plants per hill. Frequent shallow cultivation necessary until runners appear.

A and C—A long dark green cucumber which merits a trial. Uniform nearly cylindrical, well rounded at ends.

Cubit—Won Bronze Medal Award in 1944 All-American Selections. Dark green, white spine, cylindrical with blunt ends. Firm flesh and uniform coloring. New and worthwhile.

Davis Perfect—Midseason. 9" to 10" long. Tapered ends. Good color. 68 days.

Early Fortune—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well, and is highly resistant to disease. 66 days.

Long Green Improved—Black spined, good pickling. Grows 10 to 15 in. long. 70 days.

Marketer—Fine new variety, very prolific. Attractive rich, dark green color, carried right down to blossom end. Crisp, icy-white flesh. 7¾-in. long 2¾-in. diameter.

National Pickling—Rich dark green. Straight and rather blunt at ends but not chunky. Best all-around pickler. 55 days.

Straight Eight—Unsurpassed as slicing cucumber. All-America Selection. 2½-lb. fruits, rounded at ends, medium green. 68 days.

EGGPLANT

Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

Black Beauty (fr)—Large, egg-shaped, smooth, very dark purple fruits. Keep well. Plant bears 4 to 5 fruits. Early.

New Hampshire Hybrid—Developed for short season areas. Round to olive shape fruits, growing low on the bush.

ENDIVE

Sow at intervals for continuous supply. When well started, transplant or thin to 1' apart. To blanch, tie outer leaves together over the center when plant is nearly grown. Just before killing frosts in fall, dig the plants, taking plenty of soil with roots—pack closely together and store in dark cellar for winter use.

Full Heart or Escarole—A strongly bunched mass of thick, slightly crumpled leaves, well blanched heart. Up-right growing plant about 12 inches in diameter. 71 days.

Green Curled Ruffec—Plants 16 to 18-in. in diameter. Fine fall variety. White tender, fleshy. 95 days.

HERBS

Every garden has a place for herbs. In the vegetable garden or even in the flower garden for their ornamental appearance.

Anise—Garnish or seasoning.

Basil, Sweet—Flavor for soups.

Borage—Salad or to flavor drinks.

Caraway—Seeds and leaves for flavor.

Coriander—Flavor for candy.

Chives—Flavor for soups, stews.

Dill—Flavor for pickles.

Fennel, Sweet—Garnish or salad.

Marjoram, Sweet—Seasoning.

Rosemary—Aroma and seasoning.

Sage—Seasoning, fresh or dried.

Thyme—Aromatic seasoning.

The symbol (fr) following the variety names indicates vegetables best suited for home freezing.

OLD GARDENER SAYS . . .

Head lettuce is fine if you like it, but did you ever notice that all the fancy chefs in the big name restaurants use leaf lettuce? They pay big money for it, too, in comparison with head lettuce because it is such a perishable commodity. By growing your own, you can enjoy this luxury for practically nothing. And even the fancy chefs usually have to take some commercial variety rather than some superbly flavored home garden variety.

By the way, don't pull leaf lettuce plants up by the roots. Cut off the bunch of

leaves, with a stump about 1½" long left in the ground. This stump will throw new leaves and produce a second crop far quicker than you could grow it from seed. Lettuce is best when it grows quickly. This means using plenty of water and a light feeding with nitrate of soda, ammonium sulfate or some good general mixed fertilizer scattered between the rows about the time the third pair of leaves unfolds. By watering in this side dressing of fertilizer you get it to work quickly, and furnish the necessary water to get it moving into plant tissues.



LETTUCE

1. Great Lakes 2. Oak Leaf 3. Imperial No. 847 4. White Paris Cos

KALE OR BORECOLE

Requires moist, well enriched soil. Pick leaves as wanted, or pull whole plant. Leaves are best after a frost.

Dwarf Blue Curled Scotch—Wide spreading, fine curled blue-green plant plume-like leaves. Use as a vegetable and for ornament. Exceptionally uniform. 55 days.

How? When?

HOME GARDENING GUIDE

Where? Why?

Transplanting

DON'T assume that transplanting is worth doing for itself alone. Transplanting is like an operation to a human being: the plant must recover from post-operative shock before it can take hold and start growing again. The only value in transplanting is that it allows you to use larger plants—important in short seasons. If there is ever any question as to whether to direct-seed or to transplant, always direct-seed unless quicker maturity is a factor. Even tomatoes, the crop most often transplanted, will usually produce as quickly from seed sown in the open as they will from transplants, which must grow new roots before they can begin growing again.

Use good seedlings if you must transplant. They should be medium green in color, not too tall, and the leaves should be free from spots or dead areas. Avoid seedlings that are reddened or purplish in color, or show signs of yellowing (except in the case of celery plants, which can be quite yellow and still be good).

If you want to grow your own transplants to get healthy stock, follow these directions:

KOHLRABI

Sow early as possible in light, rich soil. When plants are in the third leaf, thin to 6" apart. Plant at intervals of 10 days for succession of bulbs until hot weather—after which they do not grow. Use while still young and tender, before skin hardens.

White Vienna Early (fr)—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular, light green. Crisp, tender, clear white flesh. 55 to 60 days.

LEEK

Large American Flag—Early, thick, long white stems. Leaves large and drooping, medium green. 130 days.

LETTUCE

Keep lettuce growing rapidly for best results. A light, rich soil needed for this. Earliest varieties must be started from seed in cold-frame. As soon as open ground can be worked, transplant. For later use, sow seed in open ground as soon as weather is favorable. Thin plants in rows 4" to 8" depending on variety.

Heading or Cabbage

Bibb—Early, small headed lettuce of excellent quality and flavor. Perfect for home gardens. Very smooth, dark green leaves, bleaching to a rich yellow.

Big Boston or Mammoth Boston—Popular for cold frame forcing and outside culture. Medium compact heads with creamy, yellow heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

Great Lakes—All-America award. An outstanding new Iceberg or Crisp-head type. A summer lettuce that stands heat well and is very resistant to tip burn. Heads medium size, solid, crisp.

Iceberg—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges. 85 days.

Imperial No. 847 (Florida Iceberg)—Heads are of good size and solid. Does well in hot weather and is resistant to tip burn. Very hardy. 83 days.

New York No. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanched, silvery white heart. Successfully grown outdoors spring summer and fall. 85 days.

White Paris Cos or Trianon—Medium large self-folding, dark green loaf shaped heads. Greenish-white, well blanched interior. 66 days.

Loose Leaf Varieties

Black Seeded Simpson—Light green, frilled and crumpled. 45 days.

Grand Rapids—Erect, compact plants. Light green, broad heavily fringed. For forcing or early planting. 43 days.

Oak Leaf—The most popular leaf lettuce for home gardens. Rick, dark green leaves, tender and delicious. Outstanding resistance to hot weather.

Prizehead—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.

MANGEL WURZEL

(See Beets, Stock)

MELONS

Muskmelon and Cantaloupe

Requires long season to develop and is easily injured by frost, or even by cool weather. Before planting, spade in liberal forkful of well rotted manure in each hill. Thin plants to 4 per hill after third leaf develops, and train vines in different directions. Cultivate as long as possible. On moist ground use shingles to hold melons off ground to prevent rotting.

Bender's Surprise—Similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed hard greenish-yellow skin. Flesh bright salmon. 95 days.

Continued on Page 16

DON'T BEGIN too soon, unless you have a greenhouse or light hotbed and can give the seedlings plenty of room. For most vegetables, 6 to 7 weeks is time enough to allow between seeding and transplanting. Most homes are too dark, so don't try to grow seedlings unless you can do it in a sunny window that gets direct sunshine for at least six hours.

Fill shallow boxes (flats) with a mixture of 1/3 good garden soil, 1/3 clean sand and 1/3 compost, leaf mould or other well-rooted organic matter. Make very shallow rows or furrows with the edge of a ruler or a wood lath, 3" apart. Sow seeds in these rows 1" apart in the row.

DON'T let your soil dry out, and don't let it be soggy. Spray lightly two or three times a day, using an atomizer or bulb sprinkler. When the best seedlings can be selected, thin out to stand 2" to 3" apart. Before transplanting into the garden, withhold water for 2 or 3 days. In transplanting, set the plants firmly by pressing on both sides of the stem with forefinger and thumb. If not firmed thoroughly, seedling may be killed by being hung with an air space underneath.

Always try to save as many leaves and roots as possible. Scientific tests show,

that it is better to allow the transplant to wilt slightly than to remove leaves to prevent that wilting. Removing leaves slows up manufacture of plant food that will help plant recover. Liberal watering should prevent wilting.

After Transplanting

As soon as the garden has been planted, water thoroughly but gently with a fine spray. This, by the way, is the only time we **sprinkle** a garden; once the plants are established, any watering should give the soil a good soaking. If a crust forms after watering, break this by working with a hoe or cultivator on both sides of the row.

In the case of slow-germinating seeds like carrots and parsnips, mixing a few radish seeds in the packet will mark the row early. Otherwise you may have to delay cultivation until too late to do a good job of weed control.

DON'T take it for granted that cultivation will substitute for watering. Tests prove that pulverized soil loses just as much water after working as before. The real reason for cultivating is to destroy weeds. Weeds shade desirable plants, rob them of moisture and use up soil plant food.

How? When?

HOME GARDENING GUIDE

Where? Why?

Vegetable Seed Culture

There's no end to the science of vegetable gardening—nor to the books that have been written about this fascinating subject. But if you haven't the time to read all the books, then try the brief paragraphs that follow. Here are the fundamental facts—the things every vegetable gardener should know—AND DO!

ASPARAGUS

Soak seed 24 hrs. before planting. Sow in loose, rich, moist soil after weather warms up. Thin to stand 6" apart. In early spring, set in permanent position, 24" apart, in rows 20" apart. Set in hole so that crown is 8" below surface, but only cover tips with 3" of soil. As plants grow, fill in until level. Don't cut first year after setting.

SNAP BEANS

Don't plant until the weather is warm and settled. Sow beans in bottom of 3" to 4" furrow, 24" between rows, but do not fill in with more than 1½" of soil over seeds. Thin to stand 4" to 6" apart in row. Bean seedlings are likely to be slowed up pushing through heavy soil. In such soils, cover seeds with mixture of half sand and half soil, or sand and peat or any other loose, light material that will allow seedlings to break through easily.

Make successive sowings every 2-3 weeks. Don't cultivate beans when wet; this may spread disease.

BUSH LIMA BEANS

Plant two weeks later than bush snap beans, when soil is warm. Space rows 24" apart; otherwise follow instructions for snap beans.

POLE BEANS and POLE LIMAS

Both these should be planted two weeks after bush beans. Rough poles set 3 feet apart should be used. Anchor well, as heavy beanvines blow over easily. Sometimes three poles set to form a tepee are used and several seeds planted around each tepee.

SPECIAL NOTE ON ALL BEANS

—Two scientific facts about beans will help produce better crops. First, being legumes, they should be inoculated with special legume culture listed in supply section. This enables plants to manufacture their own nitrogen from the air. Second, bud drop of the tiny flowers (even before they can be easily seen) cuts the early set of pods. By spraying with a fruit setting spray these buds are held on and the early crop increased by as much as 100 per cent.

BEETS

Each "seed" is a fruit with several true seeds. No matter how thinly beets are sown, they will need thinning. Plant as soon as ground can be worked in spring, thin gradually (use thinnings as greens) until roots stand 3" apart. Make three sowings, one early, one three weeks later and one 60 days before fall.

BRUSSELS SPROUTS

Grow like late cabbage, but don't use

until after heads have matured.

CARROTS

Pick carrots when they are the size of your little finger for sweetest flavor. They can also be left to grow to maturity for storage. When harvesting always remove alternate carrots to give space to the remaining ones.

EARLY CABBAGE — COLLARDS

Start plants inside. Set out 12" x 24" as soon as weather is settled. Dusting with D.D.T. is safe if outer leaves are discarded, since plant grows from the inside out.

LATE CABBAGE

Direct-seed four months before crop is wanted. Or start plants indoors 30 days before needed, transplanting outdoors 90 days before frost. Don't water freely when heads are nearly filled, as this promotes splitting; irrigate only enough to keep plants growing well.

CELERY

Start in hotbed 60 days before needed. In setting outdoors, don't get soil in or over crown. Set 7" to 12" apart. Soil must be rich, moist and loose. As soon as plants have grown to 14" to 15" tall, set 12" boards on both sides of row and hold in place with earth. Or 4" drain tile can be used to blanch individual stalks. Celery must have warm, settled weather; if chilled, plants are likely to go to seed.

CHINESE CABBAGE

Must never be grown as a spring crop since it will only go to seed. Plant after June 15, as days are getting shorter, then it will head. An excellent succession crop to follow early peas.

SQUASH, Early Prolific Straightneck

CABBAGE,
Copenhagen Market

CABBAGE, Golden Acre

SQUASH, Zucchini

ONIONS, Green Bunching

How? When?**HOME GARDENING GUIDE****Where? Why?****SWEET CORN**

For the home gardener, the simplest way to plant sweet corn is in rows or drills, not in hills. Space the rows 36" apart, and plant a seed about every 3". Thin stalks to stand 9" to 12" apart in row. The drill should be 3" to 4" deep, but don't cover seed with more than 1" of soil. The drill or furrow can be filled in as the plants grow to anchor them against the wind.

Removing suckers has been standard practice with practically all growers. Now, experiments prove that removing suckers merely takes away extra food-producing leaves and so hurts rather than helps growth. Also, suckering often disturbs roots enough to injure plant. Always plant corn in several short rows side by side rather than one long row. Corn is pollinated by wind and rows side-by-side mean that all the stalks can be reached by the pollen. Many home gardeners, on reading newspaper accounts of corn de-tasseling, assume that this is necessary to set ears. On the contrary, removing tassels may cut the crop seriously. Detasseling is **only** done where hybrid corn is raised for seed purposes. The more pollen that flies, the better the set of kernels. So **don't** de-tassel sweet corn in the home garden. If weeds are under control, stop cultivating. If weeds are bad late in the season, work the soil as shallow as possible to avoid injuring surface feeder roots.

CUCUMBERS

Sandy soils with plenty of compost are

best. Roots have difficulty on heavy soils. Plant 8 to 10 seeds in a "hill". When vine is 6" long, thin to three strongest plants. Keep fruits picked to promote continuous fruiting. If compost isn't available, feed with commercial fertilizers. Use plenty of moisture: cucumbers are 90 per cent water.

EGGPLANT

Start seed indoors 8 weeks before plants are needed. Set out after weather is warm and settled. Feed and water liberally as Eggplant needs to be kept growing rapidly to produce well. D.D.T. will control pests that until now made this a tricky crop to grow.

ENDIVE

Strictly a cool-weather crop: gets bitter at temperatures much above 80 degrees. Plant very early and again in mid-July. Use last planting as late fall salad crop, and store surplus in cold frame or cellar by digging each plant with ball of soil. Space 12" apart in rows 18" apart. Feed liberally for bigger, crisper heads.

KALE

Grow like Brussels Sprouts.

KOHLRABI

Wants rich soil. Plant early in spring 6" apart in row. Must be used when young: woody when old. Make second planting three weeks later, and again after mid-July.

MUSKMELON

Plant 8 to 10 seeds to a hill after weather is warm. If grown in cool weather or

where nights are cold, will not bear well and melons will have poor flavor. Melons love plenty of compost or well-rotted manure. When vines begin to run, thin three plants to a hill. In damp soil mulch with clean straw or raise each fruit on a shingle to keep from rotting.

OKRA

Plant on rich soil when weather is hot and settled, spaced 36" x 15". Pods mature rapidly and must be picked or they will be inedible.

ONIONS

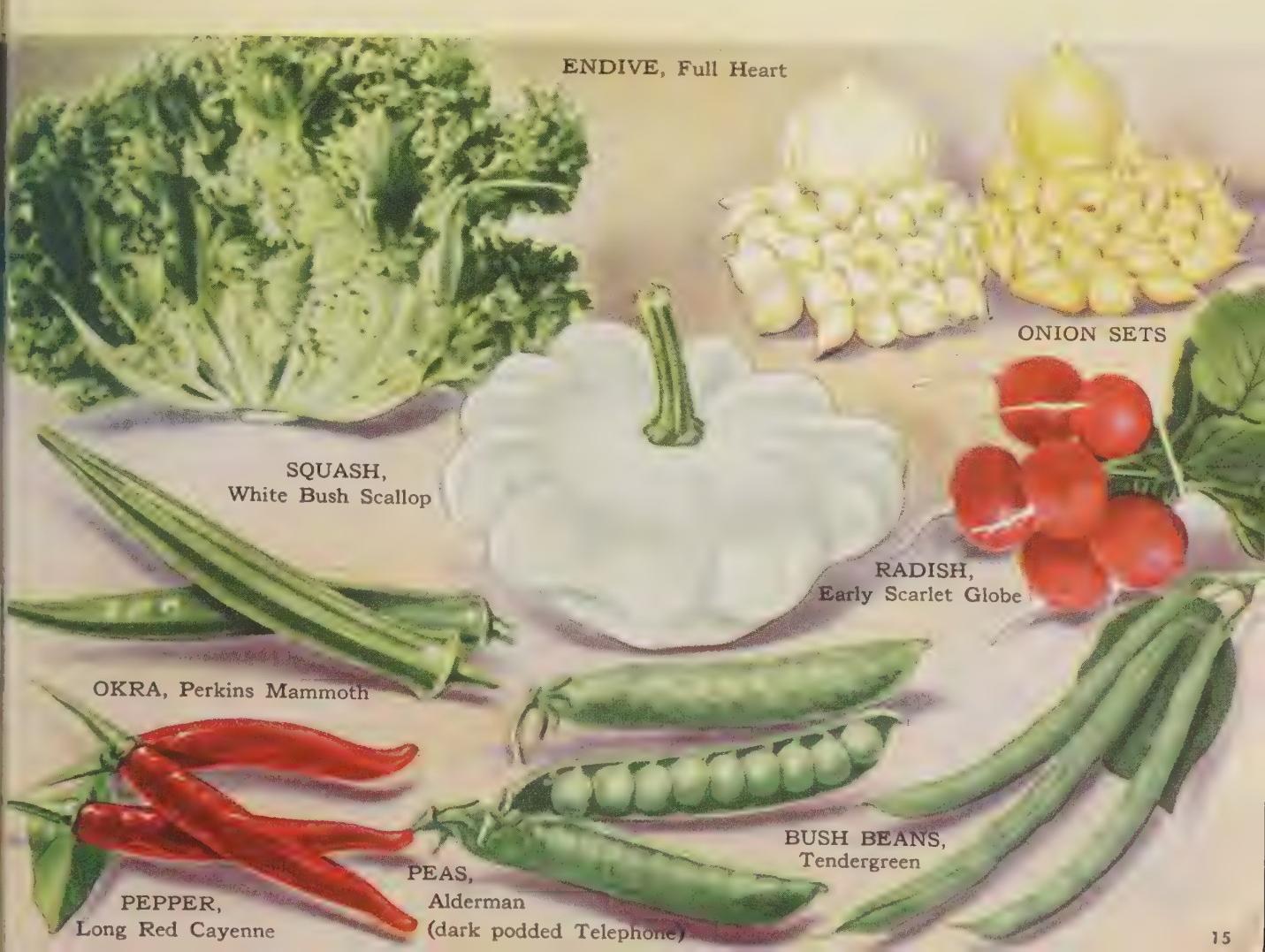
Sets produce sooner than seeds. Set 1" apart and pull every other set for use as green onions. Again pull every other onion, leaving balance of sets to mature as dry onions.

From seed, onions have better flavor. Green onions can be grown in about 60 days from seed. Use thinnings for green onions, leaving 4" apart for globe types and 6" for the big Spanish types to mature for dry onions. Latter can also be started indoors for largest bulbs and can be set out 6" apart after frost danger has passed. All onions need liberal feeding and watering.

PARSLEY

Seed germinates slowly; soak over night. Sow early as seed germinates poorly in hot weather. Space plants 6" apart. Plain parsley has best true parsley flavor: curly sorts better for garnishing. If leaves are cut off when plant is 3" tall, curly sorts will have better curl.

(Continued on Page 17)



Peas

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢
EXCEPT WHERE OTHERWISE NOTED



ONIONS

1. White Bunching
2. Yellow Globe Danvers
3. White Portugal
4. Yellow Sweet Spanish.

MELONS, Continued

Hale's Best—Flesh thick, deep salmon-pink, sweet and tasty. Heavily netted rind, with faint stripe. Small seed cavity. Outstanding variety, resistant to powdery mildew. Weight, 4 lbs. 86 days.

Hearts of Gold or Improved Hoodoo—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender sweet. 94 days.

Honey Rock or Sugar Rock—Round, 4-lb. fruit. Gray-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor. 85 days.

Pride of Wisconsin—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

Rocky Ford—Fruits small with rather large seed cavities. Nearly round, 2½ lbs. No ribs. Flesh thick and green with golden tinge at center. Very juicy and spicy. Excellent quality. 92 days.

WATERMELON

Requires about same culture as muskmelon, except the vines need more room. Fertilize each hill liberally and cultivate thoroughly.

Cole's Early—An early variety for the North. Medium size fruit, short oval with alternate dark and light green stripes. Pink-red flesh, black seeds and tender rind. 75 days.

Dixie Queen—Very prolific. Bright red, crisp, splendid quality fibreless flesh. Very few small, white seeds. 85 days.

Kleckley's Sweet or Wondermelon—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown. 85 days.

Stone Mountain—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich scarlet, fine grained, sweet. Seed white with black tips. 90 days.

Tom Watson—Red heart strain. Large fruit, uniform cylindrical, with tough, elastic rind faintly veined. 90 days.

MUSTARD

Sow as early as possible in the spring. Keep rows 6" to 12" apart and cover with soil $\frac{1}{2}$ " deep. You may also sow seed in autumn to raise greens and for salads.

Fordhook Fancy—Upright growing, mild variety. Bright green leaves, plume-like and deeply fringed on the edges. 50 days.

Southern Curled Giant—Large, frilled, crumpled. Light green leaves. 35 days.

OKRA OR GUMBO

Sow in rows about 3' apart. Cover seeds with about 1" of fine soil firmly pressed down. Thin plants 18" to 24" apart when they reach 3" growth. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick before woody fibres develop.

Dwarf Green—Early, prolific dwarf growing sort. Dark green fluted, 5 to 7-in. pointed pods. Most desirable, compact growing okra. 50 days.

Perkin's Mammoth Long Pod—Early and prolific. Very tender, long pods. Deep green and slightly corrugated. 68 days.

ONIONS

Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed as green onions. Those left to become fully ripe can be stored for winter. Cultivate and weed every 2 weeks during summer.

Yellow Sweet Spanish—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh. 112 days.

Yellow Globe Danvers—An oval shaped, straw-colored onion. White flesh, crisp and mild. Splendid keeper. 110 days.

Southport White Globe—Best of the whites. Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall. 110 to 112 days.

White Bunching—A good Spring appetizer. Crisp and mild. A fine white onion for cooking when grown larger. 60 days.

White Portugal or Silverskin—Excellent flat variety. Dependable keeper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

Southport Red Globe—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days.

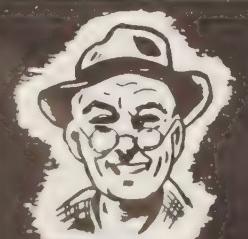
Old Gardener Says . . .

Too bad that the marvelous new weed killers containing 2,4-D can't be used near the vegetable garden. With one possible exception, all common garden vegetables are quickly killed by 2,4-D. Tomatoes are particularly sensitive. If your sprayer has been used for weed spraying, never risk using it for insecticides afterwards.

When you do spray 2,4-D near the vegetable patch or desirable ornamental plantings, always be sure to use a heavy "breaking spray" that is, one that falls in

big drops without drifting, and that immediately breaks up into a liquid film as soon as it hits the leaves. If you use too much pressure and a fine spray, 2,4-D is likely to drift a hundred feet or more and injure desirable plants.

To kill big trees, growing close to the vegetable garden, don't spray. Instead, peel off the bark until the white moist growing layer or cambium is exposed. Wrap a cloth soaked in one part 2,4-D to three parts of water around this white part. The tree will absorb the 2,4-D both ways, killing both top and roots.



We're your neighbors! Our interest in your garden doesn't end when we ring up the sale!

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for prices.

ONION SETS

Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant sets right side up and cover with garden rake; then firm the soil well over the sets.

The quickest way to get onions early. We offer choice, select, dry sets, of the highest quality. (Prices on application.)

RED WHITE YELLOW

PARSLEY

Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water over night before planting. Sow early and not too deeply. When curled varieties are about 3" tall, cut off leaves. The new growth will be brighter and curlier.

Moss Curled or Triple Curled—Compact, dark green leaves, curled and fine-cut. 70 days.

PARSNIP

Plant in rich, sandy loam, thoroughly pulverized. Seed requires plenty of moisture for germination and should be sown early. Dig after a killing frost. Freezing improves parsnips, so some can be left in the ground all winter and used in spring. For storage, bury in dry sand.

Hollow Crown (fr)—The most generally grown kind. Roots 2½ to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned. 95 days.

How? When?

HOME GARDENING GUIDE

Where? Why?

Continued from Page 15

PARSNIPS

Must be planted as early as ground can be worked. Soil must be loose to a depth of 12" and cannot be heavy. Space 5" part. Cold weather turns starches into sugar and improves flavor. Roots are hardy; leave in ground over winter if desired.

PEAS

Plant variety Alaska as soon as ground can be dug. Plant wrinkled varieties (which have better flavor) when narcissus buds show color or when crocuses are in bloom. Peas are not satisfactory when weather turns hot. Tall varieties must be staked. Most home gardeners prefer dwarf varieties like Little Marvel. Peas want well-limed soil. Don't forget, inoculation improves production.

PEPPERS

Need long growing season: start indoors 8 weeks before plants are wanted. Set out after petals on apple blossoms have fallen. Set plants 15" x 24" and feed liberally for bigger fruits.

PUMPKINS

Follow muskmelon culture, or plant in corn after last cultivation.

RADISHES

As a rule the first crop to mature: plant as early as soil can be dug. Feed liberally for quick growth. Sow a 10 foot row every ten days until weather turns warm. Start planting again with the coming of cool weather in fall. The fall and winter types are sown in mid-summer to mature in fall for storage.

PEAS

Early peas need a light, warm soil; but general crop thrives best in moderately heavy soil. (Avoid fresh manure and very rich or wet, mucky soil as this produces large growth of vine at the cost of quality of the peas.) Plant seed in rows at 2" depth. Keep rows 21" to 28" apart for dwarf varieties and 28" to 42" for the taller types. Gather crop as fast as it is fit to use or new pods will cease to form and continue growth.

✓ Early and Second Variety

Alaska—Wilt resistant. Used for canning and early home garden. Blunt, straight, light-green, 3-in. pods. Plants 32-in. 60 days.

Laxton's Progress (fr)—Medium dark green vine, 16 to 18-in. Single pods almost an inch wide and 4½ to 5-in. long with 7 to 9 large peas. 62 days.

Little Marvel (fr)—Outstanding, dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. 62 days.

Thomas Laxton (fr)—Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4½-in. Retains flavor and sweetness. One of earliest. 57 days.

Later Varieties

Alderman or Dark-Podded Telephone (fr)—Large podded variety of the Telephone family. Excellent for home gardens, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse.

SPINACH

Seed in fall (protect with straw) or in very early spring. Must mature before hot weather.

Spinach (New Zealand)

While this crop grows freely in hot weather, it will not germinate except when soil temperatures are below 70 degrees. Hence it should be sown with the half-hardy crops — those that are planted when the narcissi bloom. Plant in soil with plenty of organic matter, spacing the plants about 3 feet by 3 feet. Keep them cut back, since only the young growing tips are eaten and long, woody stems have little flavor. Many who have tried a mixture of half Swiss Chard and half New Zealand Spinach say that this is better than either vegetable alone.

SQUASH

Follow culture given for muskmelon for vine types. Grow bush types in rows, spaced 24" apart. Keep picked. Will bear all summer.

TURNIPS

Follow directions for radishes. Thinnings can be cooked for greens.

TOMATOES

There are two schools of tomato culture—those who stake and those who don't. Reasons for and against are as follows:

FOR STAKING: While staked plants produce fewer fruits per plant, they produce more tomatoes for a given area. So if room is at a premium, it will pay to stake. Staked plants usually produce cleaner fruits and bear somewhat earlier.

Pods single very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green, 74 days.

Hundredfold or Laxtonian—Exceptionally choice and prolific. Dark green. Rather coarse vines. Straight pointed, well-filled 2½" pods. 62 days.

Edible Podded or Sugar

Mammoth Melting Sugar—Wilt resistant. Coarse light-green vine, 54-in. Single 4½-in. pods, broad, indented, light, blunt, stringless, without fiber, fleshy. Contains 7. peas. Seed large round, creamy-white. 74 days.

PEPPERS

Warm, mellow soil in sheltered location is best. Start under glass. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.

Sweet

California Wonder Improved—Number one quality peppers, about 4-in. long and 3½-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkably thick walls, tender, sweet. 75 days.

Pimento or Perfection—Best of the medium sized sweet peppers. Excellent for stuffing. Smooth, heart-shaped, about 3-in. long. 125 days.

Ruby King—All-America, bred for size and uniformity. Dark green turning to bright deep red fruit. Thick flesh sweet and mild. 60 days.

Continued on Page 19



BEETS, Crosby's Egyptian (Center)
Early Wonder (Left)
Detroit Dark Red (Right)



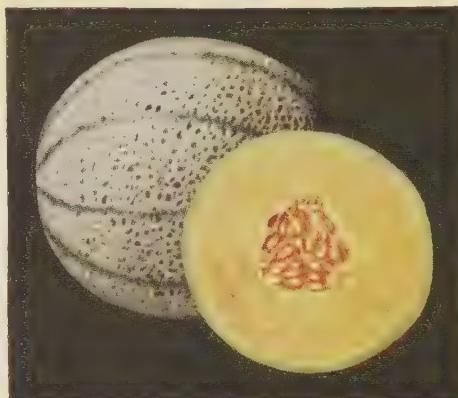
RHUBARB CHARD



ONIONS, Yellow Globe Danvers



TOMATO, Jubilee



CANTALOUE, Hale's Best



EGG PLANT, Black Beauty

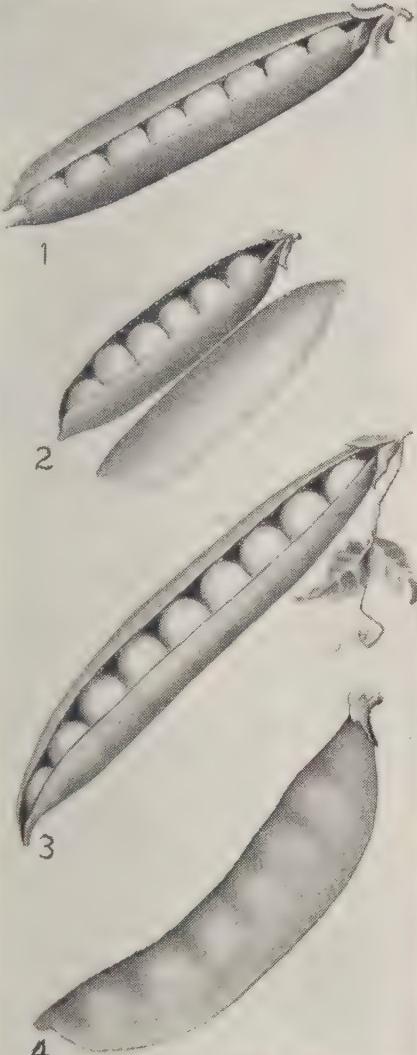
How? When? HOME GARDENING GUIDE Where? Why?

Vegetable Garden Planting Guide

	Seed Required for 50 ft. of row	Distance Between Rows	Distance Apart In Row	Depth to Plant	Approx. Yield Per 50 ft. of row		Seed Required for 50 ft. of Row	Distance Between Rows	Distance Apart In Row	Depth to Plant	Approx. Yield Per 50 ft. of Row
ARTICHOKE	1/8 oz.	48	48	1/4		LETTUCE	1/4 oz.	18	12	1/4	50 head
ASPARAGUS	1/2 oz.	24	20	1/2	25 lbs.	MUSKMELON	1/2 oz.	60	48	3/4	50 fruit
BEANS, BUSH	1/2 lb.	24	4	1 1/2	20 qts.	MUSTARD	1/4 oz.	24	9	1/2	1 bu.
BEANS, LIMA	1/2 lb.	24	3	1	32 qts.	OKRA	1 oz.	36	15	1	450 pods
BEANS, POLE	1/2 lb.	36	8	1 1/2	30 qts.	ONION	1/4 oz.	18	4	3/4	1 bu.
BEANS, POLE LIMA	1/2 lb.	48	8	1 1/2	1 1/4 bu.	ONION SETS	1 pt.	12	2	1	60 bun.
BEETS, TABLE	1/2 oz.	24	3	1/2	1 1/4 bu.	PARSLEY	1/4 oz.	12	6	1/2	45 bun.
BEETS, MANGEL	1/2 oz.	28	4	1		PARSNIPS	1/2 oz.	18	4	1/2	1 bu.
BROCCOLI	1/8 oz.	24	24	1/2	25 head	PEAS	3/4 lb.	24	2	1	1 bu.
BRUSSELS SPROUTS	1/8 oz.	24	18	1/2	15 qts.	PEPPERS	1/8 oz.	30	20	1/2	300 fruit
CABBAGE	1/4 oz.	24	12-24	1/2	35 head	PUMPKIN	2 oz.	96	60	3/4	25 fruit
CHINESE CABBAGE	1/2 oz.	24	12	1/2	40 head	RADISH	1/2 oz.	12	2	1/2	50 bun.
CARROTS	1/4 oz.	16	3	1/2	24 qts.	RHUBARB	1/2 oz.	48	48		100 stem
CAULIFLOWER	1/4 oz.	24	20	1/2	25 head	RUTABAGA	1/8 oz.	24	6	1/2	1 bu.
CELERY	1/8 oz.	24	6	1/4	100 stalk	SALSIFY	1/2 oz.	18	2	1/2	300 roots
COLLARDS	1/4 oz.	30	18	1/2	3 bu.	SPINACH	3/4 oz.	18	5	3/4	1 1/2 bu.
CORN, SWEET	4 oz.	36	9	*1	100 ear	SPINACH, N.Z.	1/2 oz.	36	18	1	50 lbs.
CORN, POP	3 oz.	34	8	1		SQUASH, BUSH	1/4 oz.	48	48	1	60 fruit
CUCUMBER	1/2 oz.	48	36	1/2	100 fruit	SQUASH, WINTER	1/4 oz.	72	72	1	35 fruit
DILL	1/4 oz.	18	4	1/2		SWISS CHARD	1/2 oz.	18	15	1	25 lbs.
EGG PLANT	1/8 oz.	36	24	1/2	75 fruit	TOMATO	1 1/2 oz.	40	36	1/2	2 bu.
ENDIVE	1/2 oz.	18	12	1/2	50 fruit	TURNIP (roots)	1/4 oz.	18	4	1/4	1 bu.
KALE	1/2 oz.	32	22	1/2	50 plant	TURNIP (greens)	1/2 oz.	12	4	3/4	1 1/2 bu.
KOHLRABI	1/4 oz.	24	6	1/2	1 bu.	WATERMELON	1/2 oz.	96	96	3/4	20 fruit

**All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED**

In bulk at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.



PEAS

1. Laxton's Progress
2. Little Marvel
3. Alderman or Dark-podded Telephone
4. Mammoth Melting Sugar.

PEPPERS, Continued
World Beater—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days

Hot

Hungarian Wax—Slender, waxy yellow fruit about 6-in. long, turns red when ripe. Very hot. 65 days.

Long Red Cayenne—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. 70 days.

PUMPKIN

Plant in middle of spring among corn; or in hills 8' apart each way. Drop 4 seeds to a hill. If planted in hills, cultivate the same as melons and cucumbers. For winter use gather before frost (leave stem 3" to 4" long) and store in warm, dry place.

Connecticut Field—Large fruit with flat ends, 15 to 25-lbs. and up to 15-in. Surface, slightly ribbed, deep orange. Thick flesh, orange-yellow, sweet and coarse. 118 days.

King of the Mammoth—Largest of all pumpkins. Valuable for stock feeding and exhibition. Globular, slightly ribbed. flattened, weigh 60 to 90-lb. Flesh solid, yellow-orange, coarse, but good quality. 120 days.

Small Sugar or New England Pie—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

RADISH

Soil should be light, quick and rich to insure rapid growth. Slow growth makes the flavor too strong. Sow as early as ground can be worked, as radishes are very hardy. Make successive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

Crimson Giant—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

Early Scarlet Globe—Globular, slightly elongated, bright scarlet. 24 days.

Early Scarlet Turnip, White Tipped—Carmine red with white tip. Flesh white, crisp and mild. 26 days.

French Breakfast—Roots thicker toward

bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days.

White Icicle—Tapering roots 5 to 5½-in., very white with pure white, mild flesh. 27 days.

Fall and Winter Varieties

Celestial or Chinese White Winter—White flesh, rather mild in flavor. Roots large, 8" long and 2½ to 3 inches in diameter, cylindrical with heavy shoulder. 60 days.

Long Black Spanish—Good keeping winter variety. White, crisp and pungent. 8 to 9 in. long, slightly tapered. 58 days.

Round Black Spanish—Top-shaped, 3" to 4". Flesh white, crisp and of strong flavor. 56 days.

RUTABAGA

(See Turnip)

SALSIFY

Light, rich soil best and it must be stirred to a considerable depth. Sow in rows 18" apart. Cover seeds firmly with ½" of fine soil and thin plants later to 2" to 3" apart in the row. Cultivate the same as parsnips or carrots.

Mammoth Sandwich Island—A palatable and nutritious vegetable when cooked. Flavor is remarkably similar to oysters. 120 days.

SPINACH

Plant very early in spring—or start seed in fall (giving it protection by 3" of straw over the winter) and enjoy an early spring crop. Cut all spinach before hot weather as it doesn't do well in extreme heat. Sow again in August or September for fall crop. Spinach should be gathered before the flower spike appears.

Bloomsdale Savoy, Long Standing (fr)—A few days later than regular Bloomsdale Savoy. Holds from 12 to 14 days longer. 42 days.

Giant Nobel or Giant Thick Leaf—Large, vigorous, spreading plant, slow to form seed stalks. Heavy yielder. Large, thick, smooth, deep green leaves. 45 days.

New Zealand—Thrives in dry, hot weather. Can be picked repeatedly all season. Not a true spinach, but similar when cooked. 70 days.

needs of your vine crops have been met). You can use coal ashes too, but apply them in fall, so fall and winter rains can leach away the sulfur. If you can't stick your index finger full length into the soil after you've added these modifiers, it's too hard for good root crops.

Another important point in growing good root crops is early thinning. If they are left to grow crowded too long, they will twist and turn, trying to get their share of what room there is. And every time a carrot twists, it grows hard fiber at the twist.

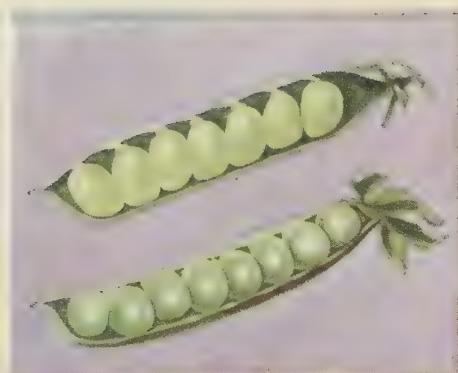
Old Gardener Says . . .

Growing good root crops is an art. In the big English shows, where vegetables outrank flowers in eye appeal, well-grown parsnips, carrots and beets usually decide who wins.

Good root crops can't be grown in stiff clay that bakes hard in the summer. If clay is your problem, it will pay to give special attention to the section in which you intend to grow these vegetables. This is the place to use your well-rotted manure, compost or other organic matter (after the



Nowadays, there's no excuse for lawn weeds! Since 2,4D came along, weeds are out of date!



PEAS, Little Marvel (top)
Laxton's Progress (bottom)



PEPPER, California Wonder Improved



BEANS, Bountiful



TOMATO, Marglobe



RADISHES, Icicle and French Breakfast



TOMATO, Rutgers

How? When? HOME GARDENING GUIDE Where? Why?

Green Manuring

a way to save weeding

A big help in reducing the amount of weeding necessary is the use of a green manure mulch on any patch of soil not being used. Whenever you remove one crop from your garden plot and won't use it again for at least several weeks, sow that spot with winter rye. Winter rye is not to be confused with rye grass. The right cover crop to use is the regular cereal grain—winter rye. Plant about 5 lbs. to 1,000 square feet to produce a thick stand that will crowd out weeds. This green mulch or cover crop will take up any unused fertilizers in the soil, and will store them in the leaves of the rye. Then the following spring when the rye is plowed under, this fertilizer returns to the soil and can be used by the succeeding crop. If the ground lies unused, most of this plant food will be lost down the drains. And because a heavy stand of rye will crowd out weeds, you should have a cleaner garden with less work the next year.

Mulching vs. Cultivation

Sometimes half-truths are as good as whole ones. The furor created by the book, "Ploughman's Folly," which advocated a trash mulch at the surface, made sense as far as the mulch was concerned. By plowing or digging in the conventional way and then mulching, the home gardener can take advantage of good soil preparation, plus the very real saving in labor that comes from using a mulch. With the right mulch, there is no need to weed, no need to stir the soil, and

once that mulch is applied, the need for watering (at least in normal seasons) is all but over. This should save hours of valuable time.

How to Mulch

A mulch is merely a covering of some material which won't support weed growth, and which is porous enough to trap air. This porous quality is important because it keeps down the loss of moisture from the soil and also keeps the heat of the sun from penetrating deeply and hurting root growth.

A perfect mulch is well-rotted, old manure. Never use fresh manure for a mulch because it will ferment and rot, and some of the gases released in this process can damage plants. But, when well-rotted, manure not only keeps down weeds and saves moisture, but can be worked into the soil after the growing season is over.

If grass clippings are allowed to lie on the lawn for a day or two to cure, they can be applied in thin layers, and gradually built up to form a thick mulch. If not dried, they may ferment and cause trouble.

Peat moss, if moist when applied, and if kept moistened, makes a perfect mulch. But since it may suck water away from the plants unless already moist, it must never be applied bone dry, nor should it be allowed to dry out. It is clean, weed-free and a good insulator.

Vermiculite, buckwheat hulls, rice hulls, ground corn cobs and clean straw are other materials that are satisfactory.

When to Mulch

Most gardeners wait too long to mulch. The soil should be moist, but not wringing wet. If spring rains have made the ground soggy, wait until you can cultivate without packing, and then apply. If the ground is dry, soak the soil thoroughly before mulching.

Mulching and Watering

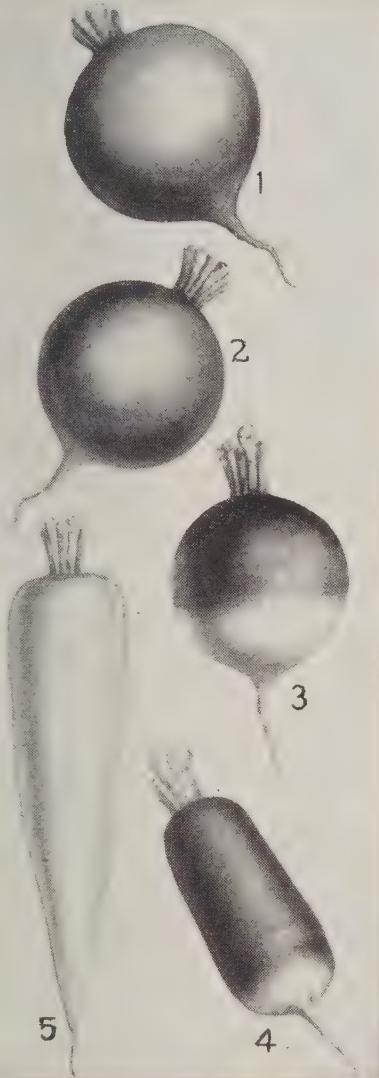
Always keep in mind that a mulch does not add any water to the soil, nor does it prevent the loss of water through the leaves of the plant. If rains heavy enough to penetrate the mulch do not fall, then you will have to water. This can be done by removing the nozzle from the hose and allowing it to flow out on top of the mulch. If the mulch is thick enough, there should be no washing of the soil.

Clean straw or dried grass used as a mulch under tomatoes will keep the fruit clean, and in addition will save the labor of staking.

Permanent vegetable storage space, either in the basement or outdoors will help extend the usefulness of the garden. This can also be used to keep tulip and other spring-flowering bulbs over summer, and for storing tender flowering plants like tree roses over winter. Often a hillside can be used to advantage, allowing access on a level with the floor of the storage room. In planning outdoor storage, remember convenient access from the house.

**All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED**

In bulk at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.



RADISHES

1. Crimson Giant
2. Early Scarlet Globe
3. Early Scarlet Turnip, White Tip
4. French Breakfast
5. White Icicle

SQUASH

Very sensitive to cold so delay planting until warm weather. Follow same care in planting and culture as for cucumbers and melons. Plant summer varieties 6 or 8 seeds in hills 3' to 4' apart each way and winter squash 8' apart. Plants bear longer if squash is picked off as soon as it is ready for use.

Summer Varieties

Early Prolific Straightneck (fr)—Earlier, smaller, and more productive than Giant Summer Straightneck, and more uniform. Brilliant yellow. 50 days.

Giant Summer Crookneck—Prolific, bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long. 4 to 5-in. diameter. 56 days.

Mammoth White Bush Scallop—3½" long, 9" in diameter. Retain their white color at later stages. 56 days.

Zucchini—Straight, cylindrical fruits, 3 to 4 lb., 3 to 5-in. through, 10 to 14-in. long. Mottled and striped green-creamy-gray. Delicate flavored flesh. 60 days.

Fall and Winter Varieties

Butternut—Deep buff-colored, bottle-shaped fruits. Smooth, hard shell. Solid fine textured flesh, that is deep yellow, dry, sweet, with excellent flavor. 12-in. long, upper or neck section 3½-in. diameter. 85 days.

Golden Hubbard—Similar to Green Hubbard but earlier, smaller and more prolific. Somewhat pointed at each end. 8 to 10 lbs. Moderately warted. Orange-red with faint cream color stripes toward blossom end. Flesh deep orange, dry. Keeps well. 100 days.

Improved Green Hubbard (fr)—Most widely grown winter squash. Round, warted, dark green with thick yellow flesh. Weight 12 to 14 lbs. 100 days.

Table Queen or Des Moines (fr)—Acorn-shaped, green, deeply furrowed; flesh rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves. 100 days.

SWISS CHARD
(See Beets, Leaf)

TOMATOES

Do best in sandy, well pulverized loam. Sow seed in hotbed or indoors. When plants are about 2" high, set out, 3" apart, in boxes or pots—later

transplant into the garden. Or keep in flats until all danger of frost is past, and then set plants out directly into the garden. Water around the roots of the plants when setting them out, if ground is dry. Cultivate frequently until plants shade the ground. Remove all but the two or three strongest branches. Study methods of staking and training vines and adopt the one best suited to your situation.

Beefsteak—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use. 90 days.

Bonny Best—Second early variety, valuable for canners. Medium-vine, not very hardy. Medium-sized, apple-shaped, solid fruits, bright scarlet. 73 days.

Earliana—Open, spreading, medium small vines. Red fruits run to medium size. This seed is selected for thick, smooth fruit. 66 days.

John Baer—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

Jubilee—Orange colored fruit. Juicy with few seeds. Weighs about 6 oz. Bears over a long season. 72 days.

Marglobe—Moderately productive. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

Oxheart—Plant open, spreading. Moderately productive. Fruits large, roughly heart shaped, pink, meaty and of mild flavor. 90 days.

Ponderosa—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink with small seed cells. Somewhat rough and flat. Have a tendency to crack. 88 days.

Pritchard's, Scarlet Topper—Medium to large, round, with thick, firm flesh and small seed cavities. Brilliant red throughout, coloring right to top, without hard green spots. Free from acidity, one of the best home canners. Early.

Rutgers—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity. 72 days.

Stone Improved—Medium late. Ripens evenly and is uniform. Fruits large, flattened, but deep. Smooth, attractive scarlet-red, of fine flavor. 86 days.

Continued on Page 23



... The man who
plans and plants
wisely this year
can load his pantry
shelves with gold!

Old Gardener Says . . .

During the past few years, tomato diseases seem to be on the increase. One of the important reasons for this has been weather favoring the growth of aphids or plant lice. These aphids carry certain virus diseases that cause the plant tops to twist and curl. Affected plants seldom bear well.

Aphids grow fast once average temperatures go above 48 to 50 degrees. But their natural enemies, the lady bug, lace wing flies, insidious plant bug and the praying

mantis, don't hatch out until warm, settled weather comes, and air temperatures average well above 70. For this reason a cool, late spring brings an increase in these diseases.

The answer is to hold back the transplanting of tomatoes outdoors until the weather is really warm and settled. Don't be fooled by a few warm days: be sure that summer is really here.

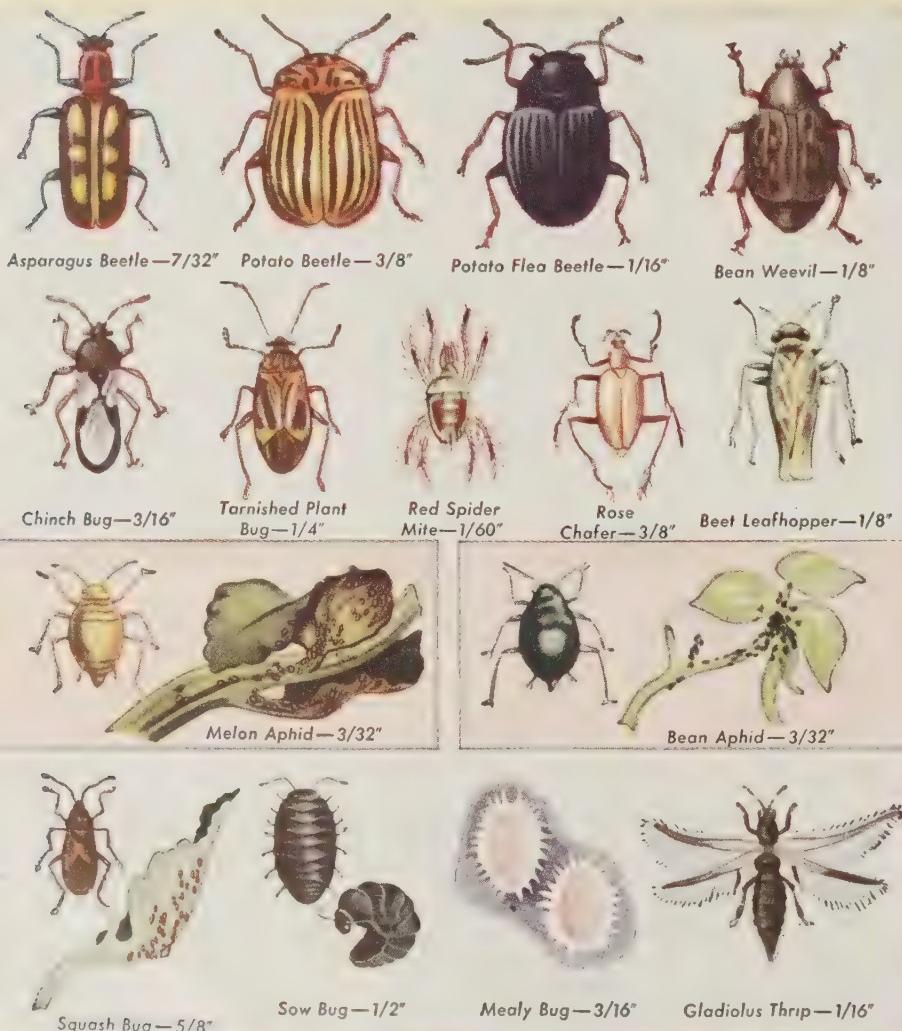
Once set out, plants should be protected by dusting or spraying until the aphid enemies really get going.

Portrait Gallery of Garden Insects

Being able to identify the insects that are causing ruin in your garden is a great stride toward their complete defeat. We present this group of natural-color portraits to make identification easy. Report the troublesome pests in your garden to us by name, and we'll be able to prescribe the right insecticides.



Garden Insects Really Aren't So Tough



When you get to know them, there's almost always a quick, easy way to their defeat.

That's why we have brought you this unique set of portraits of commonly encountered enemies of the garden. We have pictured them in full, natural color so that there may be no mistake in identifications.

If you'll use this portrait gallery as a reference guide, you can soon put a stop to the attack of garden pests. We know, from long experience, just how to handle them. We know the insecticide best for each situation . . . and we have it on hand ready for use.

NEW INSECTICIDES

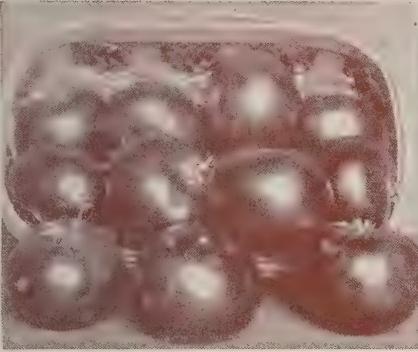
Science has made great progress in its battle against the bugs. It has made gardening easier than ever before and has insured better results.

We keep very close watch on all new developments. We know exactly which of the new formulas have proved themselves . . . and what they can do.

This practical knowledge is at your service, whenever you need it!

**REMEMBER—
FOR INSECTICIDES
ALWAYS
SEE THE SEEDSMAN!**

TOMATOES, Continued



Stokesdale — An extremely important development. Smooth, 7-oz. fruit brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than the Marglobe group. Usually ahead

of Bonny Best, too—and 2 ounces heavier.

Valiant—Plant sparse and open. Fruits large for an early variety, globe shaped and of bright scarlet color. 70 days.

Small Fruited—Red and yellow varieties, shaped like miniature pears, plums, and cherries; excellent for preserves.

TURNIP

For summer greens or roots, sow as early as radishes and lettuce. Then cut when plants are 6" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and texture.

Golden Ball or Orange Jelly—Medium size, deep yellow with bronze-green top. Creamy yellow flesh of fine texture. 65 days.

Purple Top White Globe (fr)—All purpose variety. Large, sweet tops. Smooth,

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globe-shaped roots, purple-red above, white below. Sweet, tender, crisp, white flesh. 50 to 60 days.

Purple-Top Strap Leaf—Deep purplish-red on top, white below. Flesh white and never stringy.

Foliage Turnip

Seven Top or Winter Greens—For greens or foliage. Young shoots extremely tender. Roots tough, undesirable for food. 50 days.

Rutabaga or Swede Turnip

American Purpletop—Hardy and productive. Tender firm, light yellow, sweet flesh. 88 days.

PLANTING BY THE MOON

1949 Moon Phases and Positions

Many gardeners like to govern their planting by the phases of the moon. For them, we show here all the necessary information generally shown by more voluminous arrangements. As seedsmen, we cannot vouch for the effectiveness of this method, but we are glad to provide this complete and up-to-date chart for those who want it.

JANUARY	FEBRUARY	MARCH
1 ☽ ...0:01a.	2 ♀ ...3:05a.	1 ♀ ...9:35a.
3 ✶ ...7:01a.	4 ♀ ...3:57p.	3 ♀ ...10:32p.
5 ♀ ...7:39p.	7 □ ...2:35a.	6 □ ...10:01a.
8 ♀ ...7:57a.	9 □ ...9:16a.	8 □ ...6:27p.
10 □ ...5:30p.	11 ♀ ...11:56a.	10 □ ...10:31p.
12 □ ...10:53p.	13 ♀ ...00:05p.	12 □ ...11:21p.
15 ♀ ...1:05a.	15 ☽ ...11:47a.	14 ☽ ...10:41p.
17 ♀ ...1:53a.	17 m ...0:56p.	16 m ...10:28p.
19 ☽ ...3:04a.	19 ☽ ...4:50p.	19 ☽ ...0:34a.
21 m ...6:04a.	21 w ...11:53p.	21 w ...6:09a.
23 ☽ ...11:12a.	24 ☽ ...9:29a.	23 ☽ ...3:11p.
25 w ...6:22p.	26 ✶ ...8:55p.	26 ✶ ...2:51a.
28 ☽ ...3:29a.	Changes	28 w ...3:42p.
30 ✶ ...2:27p.	☽ ...2:00a.	31 w ...4:28a.
Changes	☽ ...3:07a.	Changes
☽ ...7:547a.	☽ ...6:43p.	☽ ...6:42p.
☽ ...14:355p.	☽ ...2:54p.	☽ ...1:02p.
☽ ...21:8:09a.	☽ ...7:16a.	☽ ...9:08a.
☽ ...28:8:43p.		

APRIL	MAY	JUNE
2 □ ...4:02p.	2 □ ...6:40a.	2 m ...10:52p.
5 □ ...1:05a.	4 ♀ ...1:09p.	5 ☽ ...1:57a.
7 ♀ ...7:01a.	6 m ...5:10p.	7 m ...4:13a.
9 w ...9:28a.	8 ☽ ...7:07p.	9 ☽ ...6:25a.
11 ☽ ...9:47a.	10 m ...7:54p.	11 w ...9:41a.
13 m ...9:29a.	12 ☽ ...8:59p.	13 ☽ ...3:28p.
15 ☽ ...10:17a.	15 w ...0:01a.	16 ✶ ...0:42a.
17 w ...2:19p.	17 ☽ ...6:24a.	18 w ...0:45p.
19 ☽ ...10:02p.	19 ✶ ...4:27p.	21 w ...1:28a.
22 ✶ ...9:10a.	22 ♀ ...5:01a.	23 □ ...0:16p.
24 ☽ ...10:00p.	24 w ...5:42p.	25 □ ...8:00p.
27 ☽ ...10:39a.	27 □ ...4:24a.	27 w ...0:30a.
29 □ ...9:46p.	29 □ ...0:36p.	30 m ...4:24a.
Changes	31 w ...6:35p.	Changes
☽ ...6:56a.	Changes	☽ ...9:26p.
☽ ...12:10:10p.	☽ ...5:33p.	☽ ...10:31p.
☽ ...19:9:30p.	☽ ...12:6:55a.	☽ ...18:6:33a.
☽ ...28:2:00a.	☽ ...19:1:28p.	☽ ...18:0:02a.
	☽ ...27:4:26p.	☽ ...26:3:59a.

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Signs of the Zodiac and Their Influence

♈ ARIES: Tends to dryness, barrenness. Fairly good for cultivating, spraying and weeding.

♉ TAURUS: Fairly productive. A good sign for planting root crops particularly potatoes and bulbous plants.

♊ GEMINI: Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ CANCER: Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

♌ LEO: Most dry and barren sign. Use only to kill weeds, destroy roots, etc.

♍ VIRGO: Moist but barren. Not recommended for planting or transplanting; good for cultivating and destroying.

♎ LIBRA: Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ SCORPIO: Next to Cancer in productiveness. Irrigate but do not dig potatoes.

♐ SAGITTARIUS: Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ CAPRICORN: Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ AQUARIUS: Somewhat barren. Good only for cultivation and extermination of pests.

♓ PISCES: Similar to Cancer so use for same purposes. Very productive. Do not dig potatoes.

When to Plant

The table below shows when the moon enters each sign of the Zodiac. It also shows the moon's changes.

Under each month, we show first the time at which the moon enters each SIGN (day of the month and hour of the day, Central Standard Time). Then we show the moon CHANGES (day and hour) for each month.

1st QUARTER, MOON INCREASING—During 1st Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

2nd QUARTER, MOON INCREASING—During 2nd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, Turnips, Tubers.

3rd QUARTER, MOON DECREASING—During 3rd Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cab-

bage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

4th QUARTER, MOON DECREASING—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini, Leo, Virgo or Aquarius.

When possible, plant seed while the Moon is in the fruitful signs of Cancer, Scorpio or Pisces. The next

best signs are Taurus, Libra and Capricorn.

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3rd QUARTER, MOON DECREASING—During 3rd Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cab-

bage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

4th QUARTER, MOON DECREASING—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini, Leo, Virgo or Aquarius.

When possible, plant seed while the Moon is in the fruitful signs of Cancer, Scorpio or Pisces. The next

1st QUARTER, MOON INCREASING—During 1st Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

2nd QUARTER, MOON INCREASING—During 2nd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, Turnips, Tubers.

3rd QUARTER, MOON DECREASING—During 3rd Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cab-

bage, Cauliflower, Celery, Corn,



Make your garden work full time. Succession seeding is the answer to high food prices.

Old Gardener Says . . .

Most folks who talk about fertilizers overlook the two most important of all: air and water. Only about 1% of plant growth comes from the fertilizer elements like nitrogen, potash and phosphorus. 99 per cent comes from air and water. That's why it's important to see that your soil is loose, friable and well-drained, so that air can move thru it freely. Just as important: be sure your plants never lack for water because poor water supply can cut growth even more than lack of plant food.

At the same time, it doesn't pay to neglect feeding plants because the usual fertilizer elements don't seem to be important when considered by bulk. Lack of any one element can cut growth substantially.

That's why it's wise to be sure your garden gets a regular feeding with a well-balanced fertilizer every year. Ordinarily, it does not pay the home gardener to try to feed only the elements that might be lacking in his soil: a good application of a plant food that contains all elements is best.

Plan your garden for maximum yield

The best gardens don't just happen. A well-made plan is necessary if each square foot is to produce its maximum yield. And no one plan can be set up as best for all conditions . . . each garden must be laid out individually. The kind of vegetables to be grown and the system of cropping must be governed not only by the area and kind of soil, but by personal taste and the quantities to be produced.

For gardens of limited space, the smaller, quickly maturing vegetables such as beans, lettuce and tomatoes, which must be used fresh, are recommended. They must be cultivated by hand and may be planted close together.

In larger gardens a greater variety is possible. In such a garden, plans will probably include vegetables for canning or storing.

Put Plan On Paper

The garden plan should be drawn to scale on paper and should include planting distances, varieties, the length

of row necessary to supply the family needs and the amount of seed required. Preserve these records in order to improve your plans from year to year. The following suggestions will help you to a more successful garden this year:

- Run the rows north and south. Plants will shade one another less and receive more sunlight.
- Crops that remain in the garden throughout the entire growing season should be located where they will not be disturbed.
- Early crops should be planted together. When they are harvested, the space can be used again for fall crops.
- Tall-growing and vine crops should be planted on one side of the garden where they will not shade or overrun the smaller crops.
- **Successive cropping should be practiced in every garden.** This may be carried out in two ways. One crop may follow another in the same season . . . late cabbage or sweet corn may be planted in the space from which early peas, beans, lettuce or radishes have been harvested. Or successive plantings of the same crop may be made at intervals of seven to ten days. This

will provide a continuous supply of such crops as sweet corn string beans, spinach and radishes.

● **Companion cropping is also important.** This is the growing of two or more crops on the same area at the same time. Quick maturing crops like spinach, beans, kale, lettuce and radishes may be planted between the rows or in the rows of eggplant, tomatoes, melons, okra or other crops that occupy the ground during the entire season. The early crops will have time to mature and be harvested before the later ones will require the entire space for full development.

The facts you need

Following each vegetable listing in this book you will find the term of maturity to help you time your plantings.

In another section of this book you will find the "Planting Guide For Vegetable Gardens" giving you information regarding spacing between rows and plants, amount of seed required, etc. With this information you are ready to plant a garden that will make full use of every square foot of space.

COMMON LAWN WEEDS

So that you may more easily know them by name, here are the pests that cause most of your lawn troubles. For easy ways to combat them, refer to the Weed Killer section on a later page.

CRABGRASS



DANDELION



YELLOW FOXTAIL



LAWN PENNYWORT

YARROW



GROUND IVY

You

can help win the
world battle of food in your
own garden, kitchen and pantry!



Vegetables and fruits grown
and preserved at home help
free scarce cereals for our
friends overseas, help
stretch meat supplies, help
block inflation, help reduce
your own cost of living.



get
more
from
your

FREEDOM GARDEN

preserve more for later use

Office for Food and Feed Conservation,
U.S.D.A.

Vine Crops need organic matter

Most folks don't realize how hungry their vine crops are for organic matter. Probably it's the extra moisture they crave rather than the actual food in the organic matter.

Whatever the reason, it's a fact that melons and cukes never grow as well elsewhere as they do in shallow holes scooped out in the compost pile. That doesn't mean that you can't have these vegetables without a compost pile, but it does tell you what to do to grow them better. Plenty of moisture and rich soil are important.

Remember, too, that melons never develop good sweet flavor unless they grow entirely during warm or hot weather. If grown cool, they will probably survive, but will not develop sugar. Also, melons grown so dry that they wilt during the middle of the day cannot manufacture sugar in the leaves.

Your refrigerator . . . a garden tool?

Have you ever used your refrigerator as a garden tool? In hot weather, it's the perfect place to start certain seeds that ordinarily won't sprout except in cool weather. Take lettuce and annual larkspur for instance. These won't grow if you plant them in mid-summer heat out of doors. But mix the seed with a little sand, vermiculite, or peat moss, stand it under the ice cube compartment for a week, and it will sprout in a hurry. Then plant in the regular way and it will grow normally. The ideal temperature for germination of most cool-weather plants is 42 degrees.

Containers should be covered to hold back loss of moisture.

GARDEN-FRESH VEGETABLES THE YEAR ROUND—BY FREEZING

Freezing is one of the best, simplest and easiest methods of preserving foods. When properly handled, their natural color, flavor and nutritive values are retained to a high degree. Essentials for success with frozen foods are:

1. Freeze only foods of high quality. Freezing protects the original appearance and flavor of foods but does not improve quality.
2. Select varieties suitable for freezing and process them at the right stage of maturity. Generally this is

when they are ready for immediate table use.

3. Prepare and freeze vegetables as soon after they are gathered as possible. Loss of quality begins the moment of harvest.

4. Even when frozen, foods will dry out if not properly wrapped or packaged. Always use wrapping materials especially designed for this purpose.

5. Scald or blanch most vegetables before freezing. This helps to maintain the original taste, quality and appearance. See table below.

GUIDE FOR PREPARING VEGETABLES FOR FREEZING

VEGETABLE	HOW TO PREPARE	SCALDING PERIOD
ASPARAGUS	Cut spears in 6" lengths	3 to 4 min.
BEANS, green shell	Shell	1 min.
BEANS, lima	Shell	1 to 2 min.
BEANS, snap or stringless pole	Snip, then cut in $\frac{3}{4}$ " lengths	2 min.
BEETS	Top. Cook mature beets, then rub off skins, slice.	1 $\frac{1}{2}$ to 2 $\frac{1}{2}$ min.
BROCCOLI	Cut head lengthwise 1" thick.	3 to 5 min.
CARROTS	Scrape, slice $\frac{1}{4}$ " thick.	3 min.
CAULIFLOWER	Cut into 1" flowerets.	3 to 4 min.
EGG PLANT	Peel, slice 1/3" thick.	4 min.*
KOHLRABI	Top, peel, cut into $\frac{1}{2}$ " in cubes.	1 min.
PEAS	Shell, discard starchy peas.	45 to 60 sec.
SPINACH	Cut and discard thick stems.	2 $\frac{1}{2}$ min.
SQUASH, summer	$\frac{1}{2}$ " slices	3 $\frac{1}{2}$ min.
SQUASH, winter	1" cubes. Cook until soft, mash.	none
CORN, on cob	Eliminate over and under-mature ears.	6 to 10 $\frac{1}{2}$ min.
CORN, cut	Cut whole kernels from cob.	2 $\frac{1}{2}$ min. (steam)
SWISS CHARD	Discard main stem.	2 min.
TURNIPS	Top, peel, $\frac{1}{2}$ " cubes.	1 min.

* Cool first in 2% citric acid solution, then cold water.

Better sauerkraut in warm weather

Folks who like kraut usually make it in the fall. But for best flavor, the scientists tell us, it ought to be made in warm weather. This means that we ought to figure on planting late cabbage as the **first** crop in spring, so it will mature in warm weather. Sounds strange, but here's the reason:

The flavor of sauerkraut is the product of lactic acid fermentation. The lactic acid bacteria work best at about 85 degrees thus producing a better flavor. And after your kraut is done, it should be canned or put in a cool cellar to keep. If you can't do this, better wait until later and make your kraut in a warm spot in late fall.

Good drainage . . . less drought damage

Good drainage may mean less damage by drought during the heat of summer. Here's why: In wet, soggy soil, roots don't make normal growth. They tend to grow in the upper few inches where they can reach air. The same is true where the hose is used for a light sprinkling instead of deep soaking. By providing deep drainage, so excess moisture runs off in a hurry, you can be sure your roots will follow the moisture down. Then when dry weather comes, the roots won't be near the surface. If you do install underground drainage, be sure it has an outlet, or it will collect water and make things worse.

How to be a "Glad expert"

You can become a "glad expert" quickly and easily by careful observance of a few simple points:

1. Select new, young corms of proved varieties as listed and displayed in our store.

2. Plant them when the soil is warm and the weather settled. Corms may be planted every two weeks until hot weather for a succession of bloom; or early, mid-season and late kinds may be planted at one time for a long show.

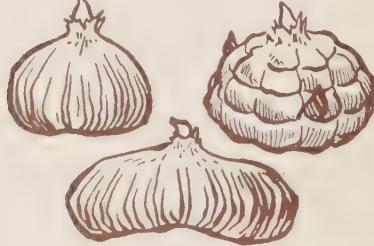
3. Fertile, light soil is best with little or no shade.

4. The soil should be kept moist to produce the biggest and best spikes of bloom.

5. Thrips may injure glads by crippling the flowers and leaves. Whitish lines followed by brown areas appear on leaves and flowers. Spraying will control them but the corms must be treated when they are stored to prevent recurrence the next year. Ask for latest information on the new chemicals available for thrips.

6. After the foliage has ripened, the corms should be dug as shown below. The small cormlets that are found at the base of the larger ones may be saved and planted. However, two or more years may be required before they reach flowering size. They should be planted separately from the large corms and given extra care to build them up.

7. Except in cases of rare kinds, it is usually better and easier to buy flowering size corms.



PLANT HIGH-CROWNED CORMS

Vigorous, young bulbs are high-crowned as shown in picture at upper left. Old, flat corms, as shown in the lower picture, are not as good. When treating bulbs for pest or disease, peel them as shown in upper right.

LIFTING AND STORING BULBS



Lift your glad corms about when the tips of leaves turn brown. Do not remove stalks while leaves are still partly green. Store in bunches in open-slatted trays and in a cool place. For overwinter storage, cover bulbs with dry peat moss or sand or vermiculite. Avoid over-heating.

BULBS FOR SPRING PLANTING

GLADIOLUS

Bagdad—Smoky old rose, deeper at edge of throat, lighter in throat. 6 to 8 immense blooms open at one time.

Beacon—Clear bright scarlet, with large creamy throat blotch. 8 to 10 medium size florets, moderately ruffled.

Bit o' Heaven—Very nice orange with yellow throat. Opens 9 to 12 medium sized blooms on tall, straight spike.

Blue Beauty—Light blue, edges of petals lined with violet-blue. Throat somewhat lighter on upper petals

Corona—Creamy white with halo of rose stippling on edge of petals. Opens 6 large rather loosely attached blooms at a time.

Dream o' Beauty—Large rose red. A very popular shade. Tall strong grower.

Elizabeth the Queen—Clear mauve-ruffled flowers with dark lines in the throat. Large, fine form and opens 7 to 8 blooms at a time.

King Lear—Clear deep reddish purple with silver line on edge of petals. Extremely large, heavily ruffled. Early.

Margaret Beaton—Huge snowy white florets with a very small vermilion-pink blotch deep in throat.

Margaret Fulton—A beautiful large flower of salmon pink. Blooms early.

Miss Bloomington—Tall with large light yellow flowers of good substance.

New Europe—Vivid garnet red with

small purple stripe in throat. Enormous florets, 10 open at one time.

Oregon Gold—A huge plant the size of Picardy. Flowers are a medium yellow with deeper throat.

Phyllis McQuiston—Large deep glowing shrimp pink shading a little lighter in throat; 5 or more open on long spike.

Picardy—Soft shrimp pink without flecking. Blotch of flesh pink shading to shrimp pink at edges. Very large.

Rewi Fallu—Deep blood-red very large blooms on tall straight spike. Early.

Rosa Van Lima—Light rose with a few lines in throat. Up to 8 or more large blooms open on tall strong spike.

Shirley Temple—Lovely cream with dark throat. Immense ruffled blossoms on long strong spike. Midseason.

Snow Princess—New fine white of good size and form. Many open blooms, perfectly placed. Stems never crook.

Stoplight—New brilliant red, lightly ruffled blooms, flat and wide open. Consistent performer and heat resistant.

Vagabond Prince—An unusual iridescent garnet brown color, lighter in upper throat and with small blotch of glowing flame scarlet on lip petal.

LILIES

Few flowers provide such regal beauty as lilies, and few are as hardy. Let us suggest the varieties that will thrive best in your garden.

CANNAS

King Humbert—(Orchard-flowering). Orange-scarlet with bright red markings; deep bronze foliage, 4 feet.

Yellow King Humbert—Beautiful yellow with red spots. 4 feet.

President—Immense bright red in large clusters. Green foliage, 4 feet.

Hungaria—Large dainty rose-pink, frequently edged cream. 4 feet.

Wintzer's Colossal—Largest flowering. Vivid, blazing scarlet. Green foliage.

CALADIUM

Fancy-Leaved—Rich ornamental leaves marked, veined and striped with white, pink and dark red.

Elephant's Ear—One of the largest ornamental plants for beds and borders. Huge green leaves give unusual effect.

TUBEROSES

One of the most fragrant of all flowers. Tall spikes of white blooms.

DAHLIAS

Avalon—(F.D.) A fine garden variety. Profuse bloomer with rich large lemon-yellow blooms.

California Idol—(I.D.) A fine yellow with deep flowers. Heavy blooming with strong bush.

Dixie's Wine Dot—(I.D.) A beautiful variegated flower. White, speckled and splashed with wine red. Showy.

Evelyn Chandler—(F.D.) Golden apricot. Large flowers on long stiff stems. Excellent for cutting.

Jane Cowl—(I.D.) Lovely buff and old gold shading to a salmon center. One of the best for garden or cutting.

Jersey's Beauty—(F.D.) Glorious clear pink. One of the finest ever produced. Marvelous for bouquets.

Michigan White—(S.C.) A topnotch white for garden and show. Medium size flowers keep well. Long stems.

Mrs. Geo. L. Boutellier—(F.D.) One of

the largest bright red. A giant flower in a brilliant color.

Mrs. I. de Ver Warner—(F.D.) A beautiful orchid pink. Lovely large flowers on long strong stems.

Thomas A. Edison—(F.D.) A fine large flower of a rich, royal purple. Outstanding.

Miniature Dahlias—Lovely 3- to 4-in. blossoms just like the large ones in form and shape. All have good stems. A wide range of colors. Try them!

Pompon Dahlias—Charming "button" dahlias that require little care. Gorgeous cut flowers.

Short supplies of many Dahlia varieties this year may make it impossible for us to keep all listed varieties in stock. We will, however, have representative assortments of the best and most popular varieties available.



DAHLIA,
Formal Decorative



DAHLIA,
Miniatures



Picardy

Miss Bloomington

Dream O'Beauty

Lavender Ruffles

GLADIOLUS

How? When? HOME GARDENING GUIDE Where? Why?

GLADIOLUS

Perhaps the most useful of all summer-flowering bulbs. Excellent to fill in places where perennials have died, or where annuals have failed. When used in this way, need no care other than that given the other garden flowers. Do not use extra fertilizer; too much food promotes production of bulbils or offsets at the expense of good bloom and of a sound central bulb.

Gladiolus bulbs can be planted at any time from earliest spring until July first (if sound bulbs are on hand that late). Before planting, treat bulbs for thrips (ask for information). In light soil, plant 5" to 6" deep. This will help support the flower spike which might otherwise fall over. In heavy soil, 4" deep is correct. If planted too shallow, more bulbils will be produced, but not as good flowers. Space 6" apart in rows 24" apart, though for smaller, older sorts, 4" may be enough room to allow.

Regular spraying to control thrips is essential wherever this insect pest has been seen. If your flowers failed to develop properly last year, and if the leaves had greyish tan patches on them, this means you had thrips, and will have them again unless you treat. D.D.T. has proved a perfect control for this pest.

DAHLIAS

Perhaps our most spectacular fall flower, the Dahlia should not be planted too early, as the flowers will not do well in warm weather. Do not, however, keep

tubers later than June 1st, since by that time they usually start shriveling and may be injured if kept later. Dahlias need plenty of potash and phosphorus. If you apply the 25 to 30 lbs. of mixed fertilizers recommended for general use before planting, then additional feeding of potash and phosphorus will still be needed to produce firm tubers that will keep over winter, healthier plants and better bloom.

Leaf hoppers which carry disease and which also injure the plant by sucking juice from the leaves and stems are easily controlled by regular dusting or spraying with D.D.T. Mulching with straw, excelsior or some other airy, light material will help keep the soil moist and cool. Don't use leaves or grass clippings that mat down and pack—they hold in too much moisture.

Horticultural vermiculite is the perfect winter storage medium for dahlia tubers. Dry the freshly dug tubers in the sun for several hours. Then cover them completely with dry vermiculite. They can't freeze in it. They won't shrivel or mold.

FANCY LEAVED CALADIUMS

These spectacular foliage plants are particularly valuable because they do well in shade. Start them in a mixture of half sand and half leaf mould at a temperature of over 70 degrees. When the roots are well-developed and the shoot is beginning to show, pot up in rich soil. Set out in the garden when weather is warm and settled. Elephant ears can be planted directly in soil out of doors, but the weather must be warm and settled, otherwise they will rot.

Bulbs and tubers are a good INVESTMENT

Few garden flowers pay such high dividends as bulbs and tubers! Lasting for years . . . they return your investment over and over . . . by giving so much beauty for such little care, or cost, or effort.

TUBEROSE

This warm-weather bulb should be planted in rich soil, with 2" of soil over the tip after the weather is warm and settled. Do not try to save the bulbs: these must be grown by a specialist if they are to bloom well. Buy new bulbs each year.

CANNAS

While canna will tolerate cold soil, they usually do not start growing until hot weather comes. If planted in round beds, you will need 37 plants for a 10 foot bed (18 plants on the outside, 12 in the second row, six for the third row and one in the center). A 7 foot bed will use 19 plants, with 12 plants on the outside row, six for the middle row and one plant in the center.

LILIES

Even the swamp lilies will not tolerate wet feet; all must have perfect drainage. Yet they like a moist, cool soil. This means that liberal quantities of old well-decayed compost is almost essential for lilies. Most varieties will not tolerate lime; your soil should have a pH of 6.5 or below if you want to grow good lilies.

The finest FLOWER SEEDS in the world!

KEY TO SYMBOLS

The symbols below the name of each flower give you the following information.

- (a)—Annual
- (b)—Biennial
- (hp)—Hardy Perennial

The Culture Number shown for each variety refers to the "How to Grow" information on page 33.

AGERATUM

(a) *Culture I, 4-9'*

Blue Cap—A new, very compact sort with rich blue flowers. Pkt. 15c.

Blue Perfection—A deep amethyst blue. Grows to 9 inches high.

Midget Blue—Small 4-inch plants are covered with azure blooms, Pkt. 25c.

ALYSSUM

(a) *Culture II (hp) VI, 4-6"*

Carpet of Snow (a)—Masses of tiny pure white flowers on 4-inch plants.

Violet Queen (a)—Deep violet highlighted by white in center. Pkt. 15c.

Saxatile (hp)—Dwarf perennial. Golden flowers in earliest spring. Pkt. 15c.

ANTIRRHINUM—Snapdragon

(a) *Culture I, 1½-3'*

Half-Dwarf, Large flowered—Heavy spikes on 2-foot plants. Mixed colors. Pkt. 15c.

Tall Giant, Large flowered—Large 3-foot spikes with huge flowers. Pkts. 15c.

Maximum—Tallest kind. All colors. Pkt. 25c.

Super-Majestic—Semi-tall to 2 feet. Large flowers, ideal for garden. Pkt. 25c.

Tetra—Rust Resistant. Immense flowers in many fine colors. Produce many spikes. Mixed. 25c.



ASTER, Queen of the Market

ANCHUSA

(a) *Culture I, 2'*

Blue Bird—Bushy plants with sprays of clear blue, white-eyed flowers. Pkt. 15c.

AQUILEGIA—Columbine

(hp) *Culture VI, 2½"*

Mrs. Scott Elliott's Long Spurred—Large colorful blooms. Pkt. 25c.

ARABIS—Rock Cress

(hp) *Culture VI, 1'*

Creeping plants with small flowers in early spring. Fine for edging. Pkt. 15c.

ARCTOTIS—Blue-Eyed African Daisy

(a) *Culture I or II, 3'*

Grandis—Two-inch daisies of pearly white with bluish center. Pkt. 15c.

ARMERIA—Thrift

(hp) *Culture VI, 1½"*

Dwarf rock plants with grassy foliage and globular flowerheads. Pkt. 15c.

AUBRIETIA—Purple

(hp) *Culture VI, 6"*

A creeper with large colorful flowers in early spring. Ideal with bulbs. Pkt. 25c.

ASTER

(a) *Culture I, 1½-2½'*

American Branching—Four inch double flowers of compact form. Brilliant colors.

California Giants—Large double with curled petals. 3' plants. Pkt. 15c.

ElMonte—A huge flower 8" across. Interlaced crimson petals. Pkt. 20c.

Giant Crego—Large 4-inch flowers with fluffy effect. All colors. Pkt. 15c.

Los Angeles—Huge flower with curled petals of shell pink. Feathery. Pkt. 20c.

Pompon—Early 18-inch plants. Many brilliant colors. Mixed Pkt. 20c.

Princess—Three-inch flowers are compact with a crested center. Mixed. 15c.

Queen of the Market—Early. Short plants. Compact double flowers. Mixed Pkt. 15c.

Sunshine—4" flowers. Loose row of petals, quilled center. Pkt. 25c.

BACHELOR'S BUTTONS—Centaurea, Cornflower

(a) *Culture II or IV, 3'*

Blue Boy—A fine, clear blue. Flowers are large. Color intense. Pkt. 15c.

Pinkie—Lovely rose pink. Pkt. 15c.

Red Boy—Bright crimson. Pkt. 15c.

Snow Man—Snow white Pkt. 15c.

Jubilee Gem—Dwarf, 1' plant.

Large, frosty blue blooms. Pkt. 15c.

Mixed—All colors. Pkt. 15c.



ASTER, Sunshine

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

BLANKET Flower—See Gaillardia

BALLOON VINE—Love in a Puff

(a) *Culture I, 1½-2½'*

A clean, free-growing vine with small white flowers, and balloon-like seeds.

BALSAM—Lady Slipper

(a) *Culture II, 1½-2'*

Mixed—Double Camellia-like flowers all summer on bushy plants. Pkt. 15c.

Bellis Perennis—see Daisy, English.

Blue Lace Flower—see Didiscus.

Brachycome—see Daisy, Swan River.

Burning Bush—see Kochia.

Butterfly Flower—see Schizanthus.

CALENDULA—Pot Marigold

(a) *Culture II or IV, 1½'*

Orange Shaggy—Large orange flowers with fringed overlapping petals.

Sunshine—Golden flowers, with drooping petals. Odorless. Pkt. 15c.

Pacific Beauty, Persimmon—Large, bright orange, double flowers. Pkt. 15c.

Sunset Shades—Large flowers in shades of yellow and orange. Pkt. 15c.

Mixed—Fine mixture of many colors and types. Good for cutting.

CALLIOPSIS—Tickseed

(a) *Culture II or IV, 1-3'*

Dwarf mixture—One-foot plants with many colors of yellow and red.

Tall mixture—A splendid range of colors on tall plants.

CAMPANULA—Canterbury Bells

(b) *Culture VIII, 2'*

Single—Large bell-shaped flowers in many colors. Graceful plants. Mixed.

Double—Fine double flowers in blue, pink and white shades. Mixed. Pkt. 15c.

Cup and Saucer—Bell-shaped. Saucer of petals at base. Mixed. Pkt. 15c.

CANDYTUFT—Iberis

(a) *Culture III, 1'*

White Hyacinth—Large conical spikes of snowy flowers. Fine for edging.

Umbellata mixed—Umbrella-like flower clusters. Many fine colors.



SWAN RIVER DAISY

How? When?

HOME GARDENING GUIDE

Where? Why?

Pinching Back Flower Plants

If sturdy, stocky plants are wanted, they will need "pinching back." When five or six pairs of leaves have formed, pinch out the top, leaving two or three pairs of leaves on the stem. New shoots will come where the leaves join the stem.

Sometimes a second pinch can be made, when these new shoots in turn have formed four or five pairs of leaves, leaving two pairs on each. Pinching increases the number of flowers, though sometimes it decreases their size. Petunias particularly need pinching back if they are to remain short. Towards the end of the flowering season, after Petunias have grown long and lanky, they can be cut back to within an inch or two of the ground and they will throw out new growth. If given a light feeding of mixed fertilizer, these rejuvenated plants will often bloom as well as younger plants early in the season.

Removing Flowers

The gardener can lengthen the blooming season of all annuals and some perennials by removing old flowers as soon as they fade, and preventing the plant from going to seed. Delphiniums and Canterbury Bells will usually respond to this treatment by producing a second crop of flowers in fall.

Flowers in the Vegetable Garden

To have plenty of cut flowers without disturbing your flower borders, plant a

few rows of flowers along the edge of your vegetable garden. Or set them out between rows of early lettuce or radishes, where they can bloom after the vegetables have been used.

Large Flowered and Double Petunias

These should never be direct seeded outdoors, but must be started indoors. Use a flat filled with seed-starting mixture. Press soil with a brick or flat piece of wood to firm it. Wet thoroughly. Then broadcast the seed on the surface of the soil. Cover entire flat with a pane of glass and then with a sheet of newspaper. Set in a warm, dark place at 75 degrees to 85 degrees until seed germinates. Then move to a sunny window.

If flat dries out slightly before seed sprouts, water carefully with an atomizer. Transplant seedlings when second pair of leaves forms. Move into the garden after danger from frost is past.

D. D. T. and Aster Yellows

Though wilt resistant asters solved the wilt problem, Aster Yellows are still a menace. Now, with D.D.T., we can keep off the leaf hopper, the insect that carries the virus of Yellows to the Aster plant. Regular spraying or dusting with D.D.T. will leave a residue which will kill the leaf hopper when it lights on the plant and before it can stab the leaves and

pass on the virus. So if your Asters have been disappointing lately, try again, using D.D.T.

Window Boxes

There's nothing finer than window and porch boxes to make a house look "lived in" and gay.

The necessary boxes may be bought ready-made, or constructed at home. Redwood or cypress are the best lasting materials, but ordinary yellow pine will do nicely if well painted. Paint at least two coats, and use brass screws instead of nails to joint the boards.

Drainage of flower boxes is important. Use about two inches of coarse gravel at the bottom. Cover this with a layer of sand, and then with good, rich soil.

Fertilizing may be done with liquid manure, but commercial plant tablets are even better, and much easier to apply.

Plants suitable for window boxes are quite numerous. Among the best are petunias, nasturtium, ageratum, candytuft, dwarf marigold, cornflower, babysbreath, verbena, sweet alyssum, vinca.

For shaded boxes vinca, viola, pansy, and English daisy will be satisfactory. If boxes are exposed to hot south sun a selection of petunia, dwarf marigold, small zinnia, and portulaca may be used.

Watering should be carefully watched as the boxes dry out very rapidly when the plants have reached a good size and the roots are filling all of the soil.



CALENDULA, Orange Shaggy

DELPHINIUM, Pacific Hybrids

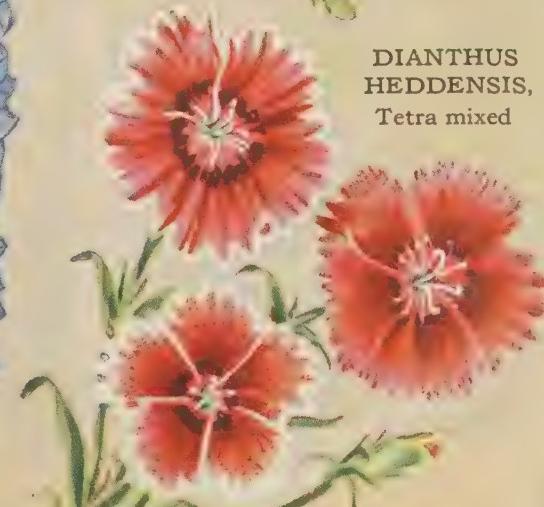


BACHELOR'S BUTTONS, Blue Boy



GAILLARDIA PICTA,
mixed

DIANTHUS
HEDDENSIUS,
Tetra mixed



All Flower Seeds

10¢ PER PACKET

except where otherwise noted

CARDINAL CLIMBER—

Imp. Cypress Vine

(a) Culture III, 10-15'

Slender vine with bright green fern-like leaves. Bright red flowers. Pkt. 15c.

CARNATION

(a) Culture I or VIII, 18"

Chabaud's Giants—Large double flowers with sweet fragrance. All colors. Flower in six months. Pkt. 15c.

CASTOR BEAN—*Ricinus*

(a) Culture III or VII, 10'

Zanzibariensis—Tall, strong plant for bold effect. Large lobed bright green leaves. Fine for backgrounds.

CELOSIA—Cockscomb

(a) Culture I or III, 1-3'

Shades of Red—Low grower with large crested heads. Like rooster combs.

Feathered—Tall, feathery heads of flowers in red and yellow shades.

CHRYSANTHEMUM

(a) Culture II or IV, 1½'

Single Painted Daisy, mixed—Showy daisy-like flowers. Rings of red, yellow, on white, red or yellow flowers.

CENTAUREA—See Bachelor's Buttons

CLARKIA

(a) Culture II or IV, 2'

Double mixed—Large double flowers in many gorgeous colors. Graceful plant. Does well in light shade.

CLEOME—Spider Plant

(a) Culture II or IV, 3-4'

Pink Queen—A tall plant with many clear pink flowers. Neat foliage. Pkt. 15c.

COCKSOMB—See Celosia

COREOPSIS

(hp) Culture VI, 2'

Sunburst—Large double flowers of rich golden color. Fine for cutting. Pkt. 15c.

COLUMBINE—See Aquilegia

CORN FLOWER—See

Bachelor's Button

COSMOS

(a) Culture II or IV, 3-4'

Dazzler—Wavy fluted petals of a velvety crimson-maroon. Pkt. 25c.

Orange Flare—Vivid orange flowers on long stems. For brilliant effect. Pkt. 15c.

Orange Ruffles—Semi-double flowers. Golden orange. Airy effect. Pkt. 25c.

Yellow Flare—Butter-yellow flowers. Similar to Orange Flare. Pkt. 15c.

Radiance—A bi-color! Beautiful, deep rose flowers have a rich crimson zone in center. Striking! Pkt. 25c.

Sensation mixed—Huge single flowers with wavy petals, many colors. Pkt. 15c.

CYNOGLOSSUM—Chinese

Forget-Me-Not

(a) Culture II, 15"

Firmament—Hundreds of tiny indigo blue flowers. Resemble Forget-me-nots. Bloom all summer. Pkt. 15c.

DAHLIA

(a) Culture I or II, 14"

Unwin's Ideal Bedding—Semi-double flowers on low bushes. Fine for beds or borders. Many colors. Pkt. 20c.

DAISY, AFRICAN—See *Arctotis*

DAISY, ENGLISH—*Bellis*

Perennis

(hp) Culture VI, 8"

Low plants with colorful double daisies in early spring. For beds, edges. Pkt. 15c.

DAISY, SWAN RIVER—

Brachycome

(a) Culture II, 10"

Mixed—Many colored small daisy-like flowers freely produced all summer. Pkt. 15c.

DELPHINIUM—Perennial

Larkspur

(hp) Culture VI, 5'

Giant Pacific Hybrids—World famous strain of immense double flowers on tall stems. Many new colors. Pkt. 35c.

Shades of Blue—A fine mixture of large showy kinds in light and dark blue. Pkt. 35c.

DIANTHUS—Pinks

(a) Culture I or VIII, 1'

Double and Single mixed—Fine mixture of colorful, sweet-scented, garden pinks.

Gaiety—Fringed petals in a wide range of flower colors and shapes. Pkt. 15c.

Heddensis—New tetraploid hybrids!

Larger flowers, longer stems, better growth. Many fine colors. Pkt. 15c.

DIDISCUS—Blue Lace Flower

(a) Culture I or II, 2½'

Coeruleus—Lacy heads of lavender and blue flowers. Lovely to cut.

DIGITALIS—See Foxglove

ESCHSCHOLTZIA—California Poppy

(a) Culture III, 1'

Large single poppy-like flowers in many showy colors. Fern-like leaves.

EVERLASTING FLOWERS

(a) Culture II, 1½-3'

Mixed—Contains such favorites as Strawflower and Globe Amaranth. Fine for dried bouquets and winter use.

FLOWERING FLAX—See Linum

EUPHORBIA—See Snow-On-The-Mountain

FOUR O'CLOCK—*Mirabilis*

(a) Culture III, 2'

Bushy plants covered with flowers of red, pink, white, violet, and yellow. Flowers close in bright sun. Pkt. 15c.

FOXGLOVE—*Digitalis*

(b) Culture VIII, 3'

Tall spikes of lovely thimble-shaped flowers of pink rose, and purple. Blooms second year.

GAILLARDIA—Blanket Flower

(a) Culture II, (hp) VI, 2'

Single, Mixed (a)—Large daisy flowers in many brilliant colors. Pkt. 15c.

Double, Mixed (a)—Double flowers in wide range of showy colors. Pkt. 15c.

Picta (a)—Showy round flowers with tubular petals. Many brilliant colors. Pkt. 15c.

Monarch (hp)—Superb daisy type flowers in shades of red, and yellow.

GILLIFLOWER—See Stocks

GLOBE AMARANTH—See

Everlasting Flowers

GOMPHRENA—See

Everlasting Flowers

GODETIA—Satin Flower

(a) Culture I or II, 2'

Double, mixed—Azalea-like flowers of many colors on bushy plants.

GOURDS, ORNAMENTAL

(a) Culture III, 12'

Mixed—Large and small kinds that will be useful for drying and novelties.

GEUM

(hp) Culture VI, 1½'

Mrs. Bradshaw — Glowing Scarlet flowers. Bright green foliage. Pkt. 20c.



Tritoma, Ptizer's



Statice, Bonduelli



Statice, Suworowii

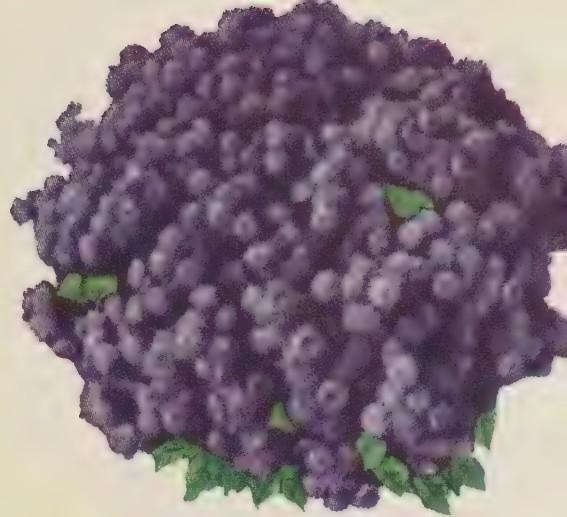
HOME GARDENING GUIDE

Flower Garden Planting Guide

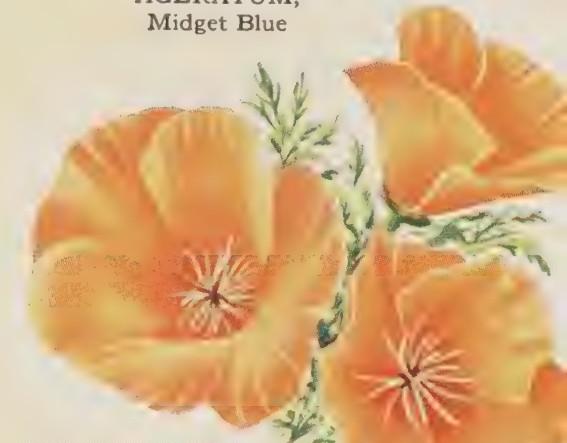
KEY—For classification of flowers by purpose, location, etc. see the second column below. The meaning of the key letters in this column is as follows:

- | | |
|-----------------------------|-----------------------|
| A—For hot, dry locations | H—For winter bouquets |
| B—For a succession of bloom | I—For fragrance |
| C—For shady locations | J—For window boxes |
| D—For poor soil | K—For vines |
| E—For edging | L—For backgrounds |
| F—For the rock garden | |

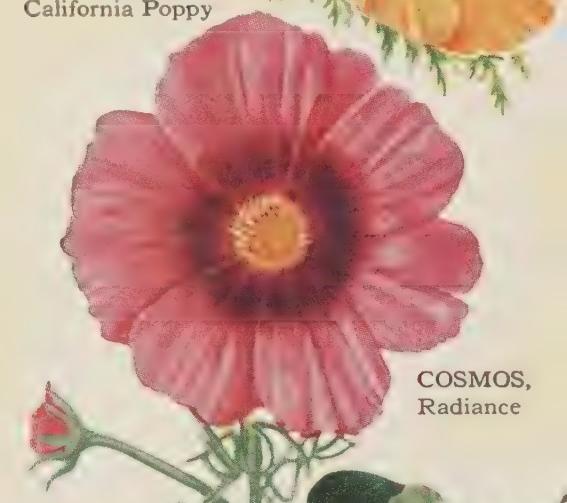
	Height (inches)	Suitable for	Average Days to Germinate	Approx. Time to Bloom
AGERATUM	4-12	A B E F J	5-10	10 wks.
ALYSSUM, Sweet	4-6	A B D E F I J	5-10	6 wks.
ANTIRRHINUM	18-36	C I L	20-25	3 mos.
AQUILEGIA	18-30	C E F	15	3 mos.
BACHELOR BUTTON	36	A B C D E I	5-20	3 mos.
BALSAM	18-24	A D E	10-12	6 wks.
CALENDULA	18	B D	10-14	12 wks.
CAMPANULA	18-24	C F L	8-15	10 wks.
CANDYTUFT	12	B C F I	5-10	10 wks.
CHRYSANTHEMUM	24-36	A B E	5-20	10 wks.
CELOSIA	12-36	C D E H	20-25	10 wks.
COSMOS	36-48	A B C L	5-15	10 wks.
COREOPSIS	24	A B D E	10-20	4 mos.
DAHLIA, Dwarf	14	B E F	10	4 mos.
DELPHINIUM	60	L	15-21	4 mos.
DIANTHUS	12	A E F I	5-10	3 mos.
ESCHSCHOLTZIA	12	A C D F	5-12	4 mos.
FOUR O'CLOCK	24	A D	5-10	4 mos.
GAILLARDIA	24	A D	15-20	3 mos.
GODETIA	24	C D	18-20	2 mos.
GYPSOPHILA	18-36	B H	15-20	10 wks.
HELICHRYSUM	36	B H	5-10	3 mos.
HOLLYHOCK	60	B L	5-20	10 wks.
KOCHIA	30	A E	15-18	
LARKSPUR	36	B C L	15-20	12 wks.
LOBELIA	4	C E J	10	12 wks.
MARIGOLD	6-36	A B D E	5-8	8 wks.
MIGNONETTE	12	B E I		4 mos.
MOON FLOWER	12 ft.	I K	5-8	5 mos.
MORNING GLORY	12 ft.	A K	5-8	4 mos.
NASTURTIUM	12-60	C D E F K	8-15	2-3 mos.
Nicotiana	24-36	A C I	20-25	12 wks.
PANSY	8	C E F	10-15	12 wks.
PETUNIA	12-20	B D E F J	18-20	12 wks.
PHLOX	12	A B C F I J	20-25	10 wks.
PORTULACA	6	A D E F J	18-20	6 wks.
SALVIA	36	A	15-25	4 mos.
SCABIOSA	24	A I	18-20	3 mos.
STOCKS	24	I	5-15	12 wks.
SCHIZANTHUS	36	C E	20-25	8 wks.
SWEET PEA	36	I K	15-20	12 wks.
SWEET WILLIAM	24	E F	10	12 wks.
VERBENA	8	E F I	8-10	12 wks.
WALLFLOWER	18	I	5-12	3 mos.
ZINNIA	12-30	A E F L	5-10	8 wks.



AGERATUM,
Midget Blue



ESCHSCHOLTZIA,
California Poppy



COSMOS,
Radiance



IPOMEA,
Heavenly Blue

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

GYPSOPHILA—Baby's Breath

(a) Culture I, (hp) VI, 1½-3'

Annual White (a)—Open, bell-shaped blooms on branching stems give airy touch to garden or bouquet.

Annual Pink (a)—The small flowers are a rosy pink. Like above.

Perennial white (hp)—Large loose clusters of small flowers give misty effect.

HELIANTHUS—Sunflower

(a) Culture II, 6'

Sun Gold—Large double flowers of a brilliant golden yellow. Pkt. 15c.

HIBISCUS—Rose Mallow

(hp) Culture VI, 4'

Giant mixed—Huge bell-shaped flowers in white, pink, red. Tall plants for damp spots. Pkt. 15c.

HUNNEMANNIA—Mexican

Tulip Poppy

(a) Culture III, 1½'

Sunlite—Soft yellow double poppy type flower. Bluish fine cut leaves. Pkt. 15c.

HOLLYHOCK

(hp) Culture VI or VIII, 5'

Double mixed—Large double flowers on tall spikes. Bloom in midsummer. Excellent backgrounds. Pkt. 15c.

KOCHIA—Burning Bush or

Summer Cypress

(a) Culture III, 2½'

Compact pyramid Needs no trimming. Bright green foliage makes neat, quick hedge. Turns bright red in fall.

LARKSPUR—Annual

Delphinium

(a) Culture II or IV, 3'

Blue Spire—Tall spikes of large double flowers in a lovely violet blue. Pkt. 15c.

White King—Pure glistening white spikes. Tall and stately. Pkt. 15c.

Pink Perfection—Lively light salmon pink Glorious when cut. Pkt. 15c.

Ruby—A genuine ruby red. A bright color in garden or bouquet. Pkt. 15c.

Giant Imperial mixed—A fine mixture of the above kinds and others. Pkt. 15c.

LATHYRUS LATIFOLIUS—See

Perennial Sweet Pea

LAVATERA—Annual Mallow

(a) Culture II, 2-3'

Loveliness—Large bowl shaped rosy pink flowers all summer. Attractive bronzy foliage. Pkt. 15c.

LINUM—Flowering Flax

(a) Culture III, (hp), VI, 1-2'

Scarlet (a)—Bright red flowers in a constant succession all summer.

Perennial Blue (hp)—Low bushy plant blooming from spring to mid-summer. Small, clear blue flowers in profusion. Packet, 25c.

LOBELIA

(a) Culture I or V, 4"

Crystal Palace—Compact border plant with myriads of tiny bright blue flowers. For all low use. Pkt. 25c.

LUPINE

(hp) Culture III or VII, 3'

Russell's Mixed—Finest of all the lupines! Brilliant colors in long, strong spikes of pea-shaped flowers. Pkt. 25c.

MALLOW, ANNUAL—See Lavatera

MALLOW, ROSE—See Hibiscus

MARIGOLDS

(a) Culture I or II,

Tall Types 1½-3'

Burpee Gold—Large carnation-like flowers in bright orange. Odorless foliage. Pkt. 15c.

Guinea Gold—Large round flowers in a rich gold Very popular.

Yellow Supreme—Light yellow, large flowers of carnation form. Pkt. 15c.

Sunset Giants—Huge dahlia-flowered strain. Lemon and gold. Pkt. 15c.

Crown of Gold—Golden flowers with crested center and broad collar of petals. Odorless foliage. Pkt. 15c.

Double Dwarf Types ½-1'

Melody—Foot high plants with loads of orange ball-shaped flowers. Pkt. 15c.

Spry—Compact plants with showy yellow flowers bordered with mahogany. Pkt. 15c.

Sunkist—Compact plants with masses of golden orange blooms. Pkt. 15c.

Scarlet Glow—Compact, with bright red, 2" blooms. Reddest of all. Pkt. 15c.

Double French Hybrids mixed.—Compact plants with flowers in yellow, orange, mahogany, and bronze. Pkt. 15c.

Single Dwarf Types, 1-1½'

Flash—Plants have many 1¾" flowers in tangerine and red shades. Grows about 18". Pkt. 25c.

Naughty Marietta—Open 2½" flowers are rich gold with maroon at base of petals. Splendid for edging. Pkt. 25c.



HIBISCUS, Rose Mallow

Red Head—New! 1948 All-America Award. Crested center of gold edged maroon, petals deep changeable red. Pkt. 25c.

Royal Scot—Alternating stripes of red and gold. Very different. Pkt. 15c.

MIGNONETTE—Reseda

(a) Culture III, 1'

Low grower with tiny, white blooms that are very sweet scented.

MORNING GLORY—Ipomoea

(a) Culture III, V or VII, 12'

Heavenly Blue—Sky-blue flowers on a tall, neat climber. Flowers close in bright sun. Exquisite on fences. Pkt. 15c.

Pearly Gates—A shining white form of Heavenly Blue. Pkt. 25c.

Scarlett O'Hara—Large velvety scarlet flowers. Very showy. Pkt. 20c.

Mixed—Many lovely shades.

Moss Rose—See Portulaca

Mourning Bride—See Scabiosa

NASTURTIUM

(a) Culture III or V

Dwarf or Bush Kinds 1'

Golden Globe—Semi-double flowers of bright gold. Pkt. 15c.

Scarlet Globe—Fiery scarlet double flowers. Pkt. 15c.

Mahogany Gem—Deep velvet mahogany red double flowers. Pkt. 15c.

Gem Mixed—All colors. Pkt. 15c.

Single Mixed—Complete mixture of all colors in the well-known single type.

Tall or Vine Kinds 3-10'

Golden Gleam—Large golden flowers. Double and fragrant. Pkt. 15c.

Scarlet Gleam—Fiery orange scarlet flowers. Double and fragrant. Pkt. 15c.

Salmon Gleam—Delicate golden salmon double flowers. Pkt. 15c.

Glorious Gleam—A mixture of all the lovely colors of the Gleam series. Pkt. 15c.

Tall Single Mixed—The old single type in the tall growers. All colors.

NEMOPHILA—Baby Blue Eyes

(a) Culture II, 6"

Many cup-shaped sky-blue flowers on low spreading plant. Pkt. 15c.

NICOTIANA—Flowering Tobacco

(a) Culture I or II, 2-3'

Long-tube starry flowers. Fragrant at night. White or light pink mixed.

PAINTED TONGUE—See Salpiglossis



LAVATERA, Loveliness

HOW TO GROW all flowers listed in this Garden Annual

The numbers, I to VIII, found with every flower listing refer to the following culture notes which give directions for growing all of the flowers we list.

In general, these elements are necessary for best results with all flowers: Loose, well-drained soil, a plentiful supply of organic matter, a good supply of plant food from a good mixed fertilizer, adequate water to keep soil moist and care to remove weeds and check pests.

One of the important problems in the garden is that of maintaining a continuous show of bloom. This calls for the use of several different types of annuals, such as those that must be planted early to grow in cool weather (**Culture IV**) and those which bloom later in summer heat (**Culture I and II**). If some of the cool-weather annuals from **Group IV** are sown in mid-summer and kept well watered, they will grow slowly until the cooler days of fall start them into more active growth. These will produce late flowers. Quick-growing annuals from **Group II** may also be sown at intervals for a succession of bloom during the summer.

One way to lengthen the blooming period of annuals is to cut off all flowers as soon as they fade. Annuals complete their life span when seed is formed and frequently stop flowering as soon as the seed ripens. By preventing the seed from forming through removal of all old flowers, the plants are kept growing and blooming.

Culture I

These flowers need a long season and must be started indoors if a full blooming period is to had. If early bloom is not important, they will bloom later in the summer when sown directly in the garden. Some gardeners sow both ways to obtain a succession of flowers.

When starting seedlings indoors, select a place with plenty of light. North or shaded windows may be too dark for best results. Cold frames are generally very good. The seed is planted in small boxes (or flats) that have good drainage and will fit the space you are going to use. Fill them with a mixture of 1/3 good soil, 1/3 sand and 1/3 humus such as peat. Press the soil down firmly and make small rows with the edge of a ruler or lath and slowly shake the seed from the packet into the rows. Sift a light covering of the soil mixture over the seed and moisten with a fine spray. Keep soil moist until the seeds have sprouted. Very fine seed such as that of petunias should be dusted carefully onto a smooth soil surface and covered with a pane of glass. Shade it with newspaper until the seeds sprout. These are best watered by setting the flat in a pan of water until the soil has become thoroughly dampened all the

way through. When the seedlings have formed the second true leaves, transplant them into other flats so the plants are about 2½ inches apart. This will give them room to grow to good size before being set out. Expose gradually to outside conditions and plant outside after the weather is warm and settled. When sown directly outdoors, follow directions under **Culture II**.

Culture II

These are the quicker-growing annuals that can be sown directly in the garden and will bloom in time to make a good display for most of the summer. If wanted especially early, they should be started as directed under **Culture I**.

Some flower seedlings are rather delicate. Extra care in preparing the seed bed will pay dividends in better plants. Prepare soil with a liberal amount of mixed fertilizer and organic matter and dig it in. Rake the surface until it is smooth and pulverized. Sow the seed at a depth equal to three times the diameter of the seed. Fine seed can be spread on the surface and pressed in without covering. Keep soil moist by light spraying until the seedlings have formed the first true leaves. When they are large enough to handle, they may be transplanted to other parts of the garden.

Culture III

These flowers do not transplant well. They should be planted where they are to bloom.

Sow as soon as the weather begins to warm in the spring. **Otherwise the culture is the same as II.** Sow seed thinly or remove the smaller plants after they are up. These can be handled as pot-grown plants as in **Culture VII**.

Culture IV

These flowers are unusually hardy annuals that can withstand very cool weather. They are often sown late in fall so they can start growing the first warm days of spring. If not sown in fall, they should be planted as early in the spring as possible. Fall sowing gets the seeding job out of the way before the spring rush.

Culture V

These flowers, while garden subjects, are also useful for winter-flowering house plants. **For garden use, handle as in Culture II.** For winter flowering indoors, plant fairly late in the season and transplant into small pots as soon as they are large enough. Keep moving them to larger pots as roots fill the soil until they are finally in six-inch pots. Annuals in pots should have at least six hours of direct sunlight daily if they are to flower.

Culture VI

Perennials can be seeded at almost any time of the year. Best periods are early in the spring or in early summer when the rush of spring work is over. A cold frame or sheltered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant more easily. Perennial seedlings are rather weak growers needing extra care. In covering the drills in which the seeds are sown, use either pure, clean sand or a mixture of half sand and half peat. This prevents packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings may be transplanted into their permanent position. Or, if more convenient, they may be left in the seed bed until the following spring. Under this



culture, only a few species will bloom the first year and they will not produce normal flowers until the following year. Planting earlier does increase the chances for flowers the first year. But, if it is more convenient, **Culture I may be used.** Delphinium seed is often started in August to take advantage of the cooler nights for the seed will not grow when the soil temperature is above 77 degrees.

Culture VII

These varieties need a longer growing season than can be given them outdoors. And because they do not transplant well, they must be started in pots and set out without disturbing the roots. **Otherwise Culture is the same I.** The use of plant bands allows you to set the seedlings out without disturbing the roots. The bands soon rot away and the seedlings will grow as though started in the garden.

If clay pots are used, the excessive drying can be avoided by placing the pots in a flat and filling the space between them with damp peat or vermiculite. Be sure to keep this material moist or it will draw moisture from the pots.

Culture VIII

These flowers are biennials. They make a leafy growth the first year but do not flower. The leafy growth of the first year forms food for blooming the following year. The flowers appear the second year and then the plant dies.

This means that a continuous show from biennials must be provided by starting new plants every year to replace those that are flowering. Biennials are handled in the same way as perennials except that they are started early in the spring to allow the plant to store as much food as possible for the next year's bloom.

Many gardeners start biennials in the vegetable garden or special starting bed and then transplant the ones needed to the flower garden the following spring. During winter, biennials should be given the same treatment as perennials.

Pansies are tender perennials that are treated as annuals or biennials. When grown as annuals, they should be started indoors about six weeks before time for planting out in early spring. When grown as biennials, the seed is started in late summer and the plants carried over winter in protected spots where extremes of temperature and moisture are avoided. Mulching or the use of frames may be necessary in your particular garden. Pansies do best under conditions of constant, moderate moisture, partial shade and a humus-rich soil. Pinching off old flowers will prolong the flowering season.

HOME GARDENING GUIDE



HOLLYHOCK, Double

ANTIRRHINUM,
Tetra-Snapdragon



SCABIOSA,
Blue Moon



ZINNIA,
Will Rogers

Flowers for Shady Locations

Most annuals need plenty of sunlight, but there are a few which do fairly well in the shade, or with partial sun. The following are worth a trial in shady spots:

Bachelor Button	Candytuft
Nasturtium	Larkspur
Pansy	Lupine
Clarkia	Godetia
Pansy	Lobelia
Coreopsis	English Daisy
Lupine	Viola
Columbine	

In the **Vine group**, those which often prosper in fairly shady places are **Cardinal Climber**, and **Morning Glory**.

Flowers for Poor Soil

Of course, the right answer to poor soil conditions is "Improve the soil!" But if you can't or don't want to do this, you can usually get fairly good results in poor soil with these:

Balsam	Marigold
California Poppy	Nasturtium
Zinnia	Petunia
Gaillardia	Portulaca
Godetia	Four O'Clock

Easiest Annuals to Grow

We are often asked to recommend annuals for growing without much care, particularly around summer cottages used only on week ends, or where the soil is poor. We suggest **Calendula**, **Gaillardia**, **Marigold**, **Petunia**, annual **Phlox**, **Scabiosa**, **Verbena** and **Zinnia**. These usually bloom profusely without care or extra watering, though some water applied when seed is sown will often insure germination.

For Successive Sowings

Some of the annuals which come into bloom quickly keep blooming for only a little while. If you want them in bloom through the season, make several successive sowings at two to four week intervals. Flowers in this class include:

Calliopsis	Gypsophila
Candytuft	Larkspur
Bachelor Button	Mignonette
Sweet Alyssum	Poppy

Annuals for Fall Bloom

While Petunias can be cut back to force new bloom, others can be replaced by sowing new seed late in June among the old plants. Try **Calendula**, **Candytuft**, **Eschscholtzia**, annual **Phlox**, **Sweet Alyssum**, and small flowered **Zinnias** for this purpose. These late-sown annuals will need extra watering to germinate and grow. The **Alyssum** and **Candytuft** often keep flowering along with the hardy **Mums**.

Annuals for Edging

Low growing annuals planted at the edge of a garden make it look neat and finished. The best plants for this purpose are **Sweet Alyssum**, **Ageratum**, **Lobelia**, dwarf **Marigold**, **Nasturtium**, dwarf **Petunias**, and **Zinnia linearis** or **mexicana**. Edging annuals should be

pinched back once to keep them especially low.

Annuals for Fragrance

We are often asked, "What annuals are really fragrant?" We recommend **Alyssum**, **Candytuft**, **Carnation**, **Mignonette**, **Gleam Nasturtiums**, **Petunia**, **Scabiosa**, **Stocks**, **Sweet Peas** and **Wallflower**.

Flowers for Hot, Dry Locations

In spots where the sun beats down mercilessly all day long, many flowers can not prosper. But some of the annuals can do well, even in these difficult locations. Here's a good list:

Sweet Alyssum	Petunia
Ageratum	Phlox, Annual
Bachelor Button	Poppy, California
Cosmos	Portulaca
Dianthus	Scabiosa
Dimorphotheca	Zinnia
Gaillardia	Four O'clock
Marigold	Salvia

Perennials for hot locations are less plentiful, but you can usually do well with **Babysbreath**, **Perennial Asters**, **Sedum Acre**, **Statice**, and **Blanket Flower** (*Gaillardia*).

Flowers for Bouquets

Most of the garden flowers can be used in bouquets of some sort. However, some are so small that special miniature vases must be used. Others will need low saucers and must be used in special places. The following list includes the best ones for most uses in bouquets and flower arrangements:

Aster	Gypsophila
Bachelor Button	Larkspur
Calendula	Lupine
Chrysanthemum	Marigolds
Clarkia	Phlox
Coreopsis	Salpiglossis
Cosmos	Scabiosa
Delphinium	Statice
Gaillardia	Sweet Peas
Godetia	Zinnias

Flowers for Low Bowls

Many excellent flowers are neglected because of the stems are so short that they need low bowls or saucers to display. Or they may be floated on deeper containers. While they are a little hard to arrange, they are very fine for use on dinner tables, buffets, and in front of mirrors. They are beautiful and still do not cut off or hide any of the other decorations. Some of the best for this type of use are:

Carnation	Dianthus
Nasturtium	Lavatera
Petunia	Mignonette
Candytuft	Nemophila
Dwarf Marigold	Verbena
Dwarf Zinnia	Viola
Phlox	Pansy
English Daisy	

For Winter Bouquets

Several flowers can be dried and used for winter decorations. The everlasting are best known but Statice and Gypsophila are also fine. Celosia will last a long time but is not as showy as the others.

HOME GARDENING GUIDE

A PROGRAM FOR GARDEN SANITATION

About 75% of the work and much of the damage caused by insects can be eliminated by a simple, regular program of sanitation. Preventive dusting or spraying is much easier than waging a losing battle against bugs when they appear. Usually, less than 30 minutes a week should be needed for a regular sanitation program for both flowers and vegetables.

Along with a regular program of insect control, plan on destroying weeds along the edges of your garden, the places where insects hide during the winter. If possible, control the weeds for a distance of at least 25 feet on all sides of the garden. Not only will this eliminate insect hiding places, but it will reduce the number of weed seeds that might otherwise blow onto your garden.

This program involves two new chemicals. Apply a 5% dust of D.D.T. to the grass and weeds about every three weeks, so that most insects that might otherwise move into the garden will be killed. So will mosquitoes, chiggers and harvest mites that can make gardening so unpleasant.

The regular use of 2,4-D will keep down all of the broadleaved weeds, without danger of poisoning animals, children or of damaging equipment with corrosive sprays. In using 2,4-D around flowers and vegetables, however, be extremely careful not to allow the spray to drift onto these, as most garden plants are as easy to kill with this material as the weeds.

Any spray that will kill grasses will also hurt the soil so that it

can't be used for growing plants for several years. If this is not objectionable, use one of the non-selective weed killers—and clear the ground of all vegetation (as on driveways, tennis courts, etc.) Ask us for details.

New ideas on garden layout

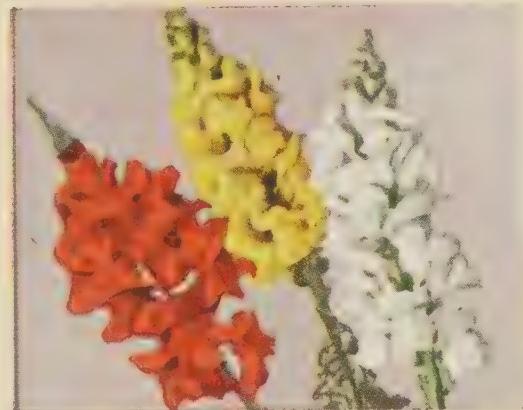
D.D.T. for pest control promises to change the whole scheme of garden layout. We can now divide vegetables into two groups—one to be dusted with D.D.T. and the other to be left undusted. The D.D.T. plot should be on the lee side so that wind will not drift from it into those which should not be dusted.

This puts the following vegetables on the side away from the wind—bush and pole beans, limas, beets unless you want to eat the thinnings as greens), carrots, sweet corn, eggplant, okra, onions, parsnips, peas, peppers, radishes, tomatoes and turnips (again, only if you don't eat the greens).

Facing the wind should be the vegetables not to be dusted, including Brussels sprouts, cauliflower, Chinese cabbage, collards, cucumber, endive, kale, kohlrabi, lettuce, muskmelon, parsley, pumpkin, rhubarb, spinach, squash, Swiss chard and watermelon. In general, rows get better distribution of sunshine if they run north and south. If this arrangement isn't necessary, better put corn and other tall crops to the north of the shorter crops. Sweet corn should not be planted in one or two long rows, but in several short rows.



ASTER, Wilt-resistant



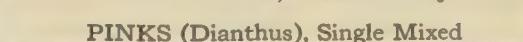
SNAPDRAGON (Antirrhinum), Mixed



AQUILEGIA (Columbine), Mixed



PYRETHRUM, Painted Daisy



PINKS (Dianthus), Single Mixed



QUICK-FIGURING CHART FOR DILUTIONS

• With Liquid Materials •

For Strength	Use to make 1 qt.	Use to make 1 gal.	Use to make 5 gals.	Use to make 25 gals.
1-100	2½ tspns.	10 tspns.	12 tbspsns.	1 qt.
1-200	1 tspn.	5 tspns.	6¼ tbspsns.	1 pt.
1-400	½ tspn.	2½ tspns.	3 tbspsns.	8 oz.
1-500	½ tspn.	2 tspns.	2½ tbspsns.	6 oz.
1-600	1-3 tspns.	1¾ tspns.	2 tbspsns.	5 oz.
1-800	¼ tspn.	1¼ tspns.	6 tspns.	4 oz.
1-1000	¼ tspn.	1 tspn.	5 tbspsns.	3 oz.

4 tspns. equal 1 tbspsn.; 2 tbspsns. equal 1 oz.; 16 ozs. equal 1 pt.

• With Powdered Materials •

Rate per 100 gals.	Use to make 1 qt.	Use to make 1 gal.	Use to make 5 gals.	Use to make 25 gals.
1 lb.	1 tspn.	1 tbspsn.	4 tbspsns.	4 oz.
2 lb.	1¾ tspns.	1¾ tbspsns.	8 tbspsns.	12 oz.
3 lb.	2-2-3 tspns.	2-2-3 tbspsns.	2½ oz.	1¼ lb.
5 lb.	4½ tspns.	4½ tbspsns.	4 oz.	1½ lb.
6 lb.	5-1-3 tspns.	5-1-3 tbspsns.	4¾ oz.	8 oz.

Measures are for material weighing the same as flour. For heavier materials use less. Weigh if possible. Strain before using.

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

PANSY

(a) Culture I, II or VIII, 8"

Swiss Giants—Large flowering strain with fine range of gorgeous colors. Best of the improved pansies. Pkt. 50c.

Tufted Pansy—See *Viola*

PERIWINKLE—See *Vinca*

PETUNIA

(a) Culture I or IV

Small Flowered, 10-14"

Balcony—Trailing kinds for use in window boxes and bedding. White, red, rose, or blue. Each. Pkt. 20c.

Blue Bee—A lovely violet blue. Pkt. 15c.

Cheerful—Clear salmon pink with rose veining in throat. Compact. Pkt. 25c.

English Violet—A fine purple-violet color. Spreading plant. Pkt. 20c.

Flaming Velvet—A velvety blood red. Best of its color. Pkt. 20c.

Glow—Rich carmine red flowers on a compact plant. Brilliant. Pkt. 25c.

Martha Washington—Ruffled flowers of pale pink, violet throat. Pkt. 25c.

Rose of Heaven—Best of the rose colored strains made famous by Rosy Morn. Color is slightly deeper and more uniform. Compact. Pkt. 15c.

Silver Medal—New 1949 All-American Award. A lovely salmon. Good size flowers on compact plants. Pkt. 50c.

Large Flowered, 12-20"

America—Double carnation-like flowers of a deep rose pink. Pkt. \$1.00.

Burgundy—Huge single flowers of a rich wine red, white throat. Pkt. 25c.

Colossal Shades of Rose—1948 All-American. Large plants have huge flowers of light and deep pink shades. Very double with many frilled and fringed petals. Pkt. \$1.00.

Glamour—Huge ruffled blooms of a luscious salmon. Blooms early. Pkt. 25c.

Giants of California—Huge flowers of many fine pastel tints. Pkt. 25c.

Little Giants mixed—Compact plants with medium flowers in many new colors and shapes. Pkt. 20c.

Snow Storm—Large plain glistening white flowers with creamy shading in throat. Very beautiful. Pkt. 50c.

Theodosia—Large ruffled flowers of deep rose pink with golden throat. Very showy and lovely. Pkt. 25c.

PHLOX

(a) Culture II, 8-12"

Lovely clusters of showy flowers on low plants from early spring on. Easily grown. Many splendid colors.

Separate colors, each, pkt. 25c.

Mixed. Pkt. 15c.

PINKS—See *Dianthus*

PINCUSHION FLOWER—See *Scabiosa*

POPPY

(a) Culture IV, (hp) VI, 1½-3'

Iceland mixed—Excellent perennial for borders and rock gardens. Large colorful flowers from ferny foliage. Pkt. 15c.

Oriental Scarlet—Huge red blooms in early summer from perennial root. Useful for bold color. Pkt. 15c.

Shirley, mixed—The easily grown, lovely annual poppy. Many bright colors. Grows easily and self-sows.

POPPIES, CALIFORNIA—See *Eschscholtzia*

POPPIES, MEXICAN TULIP—See *Hunnemannia*

PORTULACA—Moss Rose

(a) Culture III or IV, 6"

Jewel—Huge crimson flowers. Much larger than old kinds. Pkt. 25c.

Single, mixed—Many brilliant colors.

Double, mixed—All double. Pkt. 15c.

POT MARIGOLD—See *Calendula*

RICINUS—See *Castor Bean*

SALVIA—Flowering Sage

(a) Culture I, 2-3'

America or Globe of Fire—The well-known Scarlet Sage that is a blaze of vivid scarlet in summer. Pkt. 25c.

Blue Bedder—Deep medium blue. Slender plant for airy effect. Use to lighten up thick heavy plantings. Pkt. 50c.

SALPIGLOSSIS—Painted Tongue

(a) Culture III, 30"

Mixed—Large petunia-like flowers of rich velvety colors, veined with gold.

SCABIOSA—Mourning Bride, Pincushion Flower

(a) Culture III or IV, 2'

Blue Moon—Large double flowers of deep lavender blue. Pkt. 15c.

Peace—Round double flowers of pure white. Fine for cutting. Pkt. 15c.

Rosette—Beautiful deep rose flowers with salmon shadings. Pkt. 15c.

Imperial Giants, mixed—Large globe-shaped flowers in a wide range of red, white, coral, rose and blue. Pkt. 15c.

Mixed—All colors of the old type.

SATIN FLOWER—See *Godetia*

SCARLET FLAX—See *Linum*

SCARLET SAGE—See *Salvia*

SCHIZANTHUS—Butterfly-Flower

(a) Culture II or IV, 1½'

Mixed—Small flowers shaped like multi-colored butterflies. Delicate cut leaves. Free flowering. Pkt. 25c.

SEA LAVENDER—Statice

(a) Culture I, 2'

Bonduelli—Bright yellow flowers. Useful when dried. Pkt. 20c.

Mixed—Small tubular flowers in branching spikes. Many colors. Pkt. 20c.

Suworowii—Bright rose flowers crowded on slender spikes. Pkt. 20c.

SPIDER PLANT—See *Cleome*

STRAW FLOWER—See Everlasting Flowers

SHASTA DAISY

(hp) Culture VI, 2'

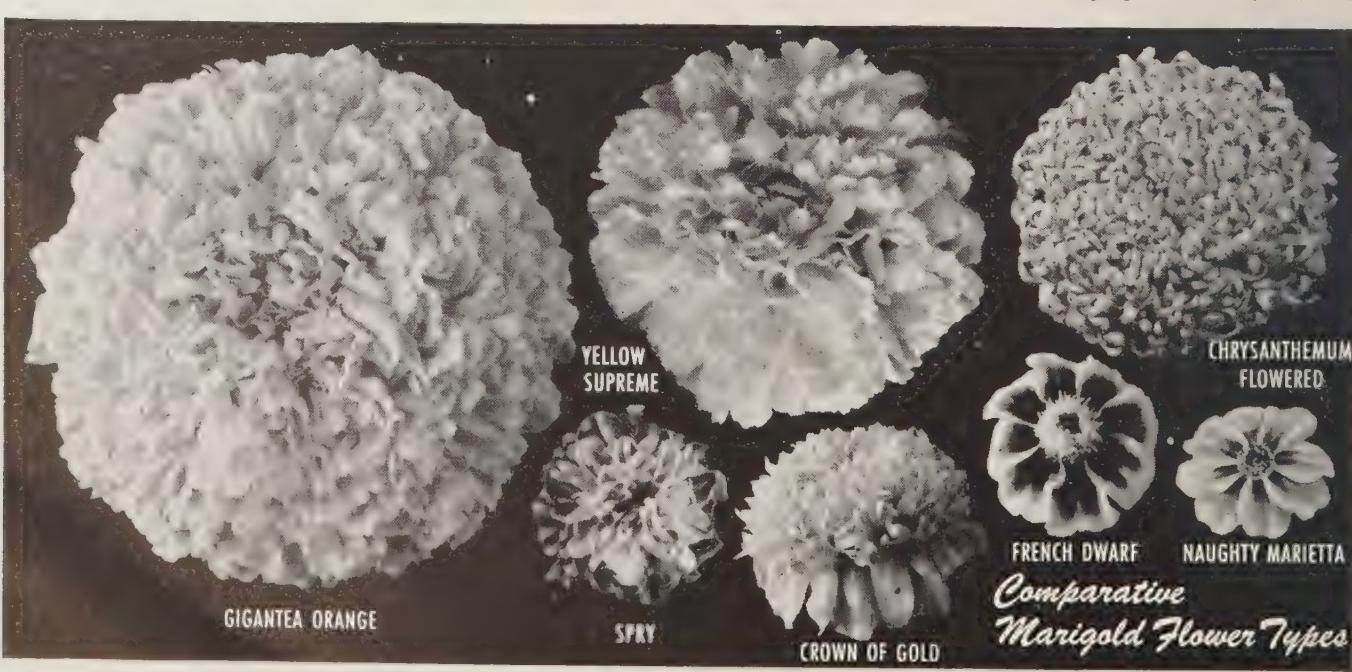
Alaska—Largest of the Shasta strains. Big, white flowers with yellow centers.

SNAP DRAGON—See *Antirrhinum*

SNOW-ON-THE-MOUNTAIN—Euphorbia

(a) Culture III, 2'

Bright green foliage edged with white. Effective for edging or contrast. Pkt. 15c.



STOCKS—Gilliflower

(a) Culture I or IV, 1-2'

Giant Imperial—Excellent double flowers on tall stems. Many bright colors. Pkt. 25c.

Beauty of Nice—Branching, with large double, fragrant flowers. Pkt. 15c.

Dwarf Ten Weeks—Low growing with strong spikes. Many fine colors.

SWEET PEAS

(a) Culture III, 3'

Early Spencer—Earliest of the many strains. Large colorful, fragrant blossoms. By variety or mixed. Pkt. 15c.

Late Spencer—Large fine flowers that flower in early summer. The standard ones for outdoor use. By colors or mixed. Pkt. 15c.

Ruffled Spencer—Wavy and ruffled petals give fine effect. Many fine colors or mixed. Pkt. 15c.

Perennial Sweet Pea—Large vine and large flowers. Useful on trellis or fence. Not fragrant. Blooms all season. New stems yearly. Pkt. 15c.

SWEET SULTAN

(a) Culture II or IV, 2½'

Mixed—Lovely colorful thistle shaped flowers. Easily grown.

SWEET WILLIAM—Dianthus

Barbatus

(hp) Culture VI, 1½-2'

Double—Double flowers crowd the heavy heads of many colors. Pkt. 15c.

Single—Lovely single pinks in large flat clusters. Fine for cutting.

THRIFT—See Armeria

TICKSEED—See Calliopsis

TITHONIA—Golden Flower of the Incas

(a) Culture I, 6'

Fireball—Single dahlia-like scarlet flowers on tall plants. Pkt. 15c.

TRITOMA—Red Hot Poker

(p) Culture VI, 3-4'

Pfitzer's Hybrids—Narrow tubular flower on tall spikes, orange red. Graceful grassy foliage. Not perennial under some conditions. Pkt. 15c.

VERBENA

(a) Culture I, 8"

Lavender Glory—Lavender with white eye. Large clusters. Fragrant. Pkt. 15c.

Mammoth White—Large heads of pure white. Useful for contrast. Fragrant. Pkt. 25c.

Scarlet—Flaming scarlet heads. Brilliant in beds. Pkt. 15c.

Blue Shades—Medium and dark blues in mammoth type. Pkt. 15c.

Mixed—Huge flower clusters, all colors. Ideal for beds and borders. Pkt. 15c.

VINCA—Periwinkle

(a) Culture III, 15"

Mixed—Colorful starry flowers on glossy-leaved, bushy plants. Does well in shade. Pkt. 15c.

VIOLA—Tufted Pansies

(hp) Culture VI, 6'

Mixed—Miniature pansies from neat plants. Flower all season. Many showy colors mixed. Pkt. 20c.

WALLFLOWER

(a) Culture I or V, 1½'

Mixed—Blood-red and yellow flowers. Resemble single stocks. Early and fragrant.

WILD FLOWER MIXTURE

(a) Culture II or III ½-3'

Old fashioned flowers in a fine mixture for all season flowering. Sow thinly and enjoy continuous flowers and delightful surprises. These are not wild flowers of the fields but a selection of garden flowers that gives a "wild" garden look when planted in a border. A good way to get acquainted with some of the unusual kinds of garden flowers.

ZINNIA

(a) Culture I or II

Small Types, 12-18"

Black Ruby—Compact, round little flowers of a deep velvety maroon. Lilliput type. Pkt. 15c.

Red Riding Hood—Deep scarlet flowers 1" across. Free flowering. Fine border plant of Lilliput type.

Lilliput pastels—Lovely soft colors in the miniature strain. Fine for borders or small bouquets.

Linearis—Single daisy-like type with small flowers in orange colors. Pkt. 15c.

Mexicana—Single and double flowers in varied and variegated colors.

Navajo mixed—Resemble Gaillardias in shape. Many colors in showy mixture. Medium size plants and flowers. Pkt. 15c.

Pumila Sunshine Tints—Dwarf plants with medium flowers in a wide range of soft colors. Pkt. 15c.

Scabious Flowered—Medium size flowers on a semi-tall plant. Resembles Scabiosa in shape. Bright colors mixed. Pkt. 15c.

Tom Thumb mixed—Lilliput type flowers on a very dwarf plant. For low borders and miniature displays. Pkt. 15c.

Fantasy—Medium tall plants with medium size flowers having shaggy petals.

Melody (orchid lavender), **Star Dust** (golden), **White Light** (white), **Wildfire** (scarlet), and **mixed**. Pkt. 15c.

Large Types, 2-2½'

Crown of Gold—Lovely golden shades with deep golden base to the petals. A large type resembling California Giants. Pkt. 15c.

Super Crown of Gold Pastels—New, improved, with many pastel colors overlying the golden base. Pkt. 15c.

Dahlia Flowered—Huge flowers in a bewildering range of bright and pastel colors. Pkt. 15c.

Giants of California, mixed—Mammoth flowers in many striking colors. Largest of all. Pkt. 15c.

Will Rogers—Dahlia type with deep scarlet color. A striking and popular variety. Pkt. 15c.

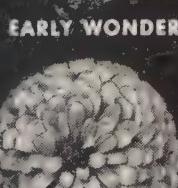
FANTASY

PUMILA TYPE

SCABIOUS FLOWRED

LILLIPUT

LINEARIS



Comparative
Zinnia Flower Types

How? When? HOME GARDENING GUIDE Where? Why?

COMPOSTING

The compost heap is a "must" for the permanent garden. Select a spot behind a shed or otherwise hidden (if your garden is in the open) and spread out your garden wastes over this area in a layer six inches deep. Use weeds, old vegetable and flower plants, vegetable waste from the kitchen and lawn clippings. Trimmings from lawn edging are particularly valuable.

On each six inch layer, sprinkle a little lime and a liberal amount of a good mixed fertilizer. The fertilizer will feed the bacteria that cause the vegetable wastes to decay. Then apply a layer of good garden soil over the lime and fertilizer. Repeat until the pile is two feet high. Wet down if rain doesn't fall.

In six months all weed seeds and other vegetable matter will be broken down by the bacteria into a rich home made "manure" that will go a long ways towards making yours a perfect soil.

You need not waste the space used for the heap, since cucumbers, melons and squashes never grow as well as when planted in shallow depressions in the compost heap.

"Long-pull" Fertilizers

It is profitable to apply long-lasting fertilizer to the permanent garden.

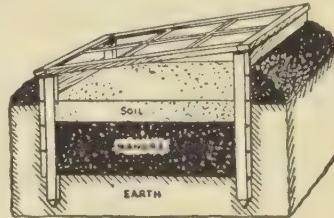
For instance, superphosphate or bone meal may last for ten or fifteen years before they are fully consumed. Also, potash such as muriate or sulfate of potash lasts a long time without washing away. Use fertilizers liberally on the permanent garden—it pays.

Lime is also a "long-pull" fertilizer if it is applied in the form of crushed or pulverized limestone and not as the more soluble slaked or quick limes. Any limestone used should be especially prepared for agricultural use, as other kinds may be too coarse to do any good.

Hotbeds and Cold Frames

Normally, these do not pay if used only for growing seedlings, but the advanced gardener will find them useful for protecting plants in fall, for storing winter vegetables or for growing lettuce and radishes until long after they are available in the open garden.

These should be located on the south side of a hedge, fence or building to break the wind, and must have at least six hours of direct sunshine during the day.



Pit should be 24" deep. Fill to top with fresh strawy horse manure and press down six inches. Set frame over manure and fill around outside and inside to level of ground. Add three inches of sifted soil inside frame. Heap leaves or straw around outside to conserve heat.

If manure is not available, dried leaves or chopped straw may be used by adding a handful of ammonium nitrate or ammonium sulfate to each bushel of leaves. This will not, however, generate as high a heat as manure.

As soon as frame is in place, water well, insert thermometer in soil and cover with sash, airing daily until thermometer drops below 85 degrees. This is time to plant tomatoes and peppers. For cabbage, caulif-

flower, broccoli and kohlrabi, allow thermometer to go below 75 degrees.

On sunny days ventilate thoroughly, but even on cloudy days a crack of air may be needed to get rid of ammonia odor.

Drainage

Low, wet spots will produce better crops if drained by tiling. Oftentimes an open trench leading water away from a low spot can be filled with crushed stone or gravel and will perform as well as more elaborate tiling.

Or the problem may be one of too much drainage—a steep slope that allows water to run off so rapidly that it causes washing or erosion. Remember that not only does surface washing carry off soil, but it also carries with it the valuable soluble plant foods as well. Grading and terracing may be too costly for most gardens, but oftentimes a simple plank set on edge will control the rush of water and hold back soil and plant foods.

Garden Sanitation

Regular sanitation measures in the garden will reduce the number of pests and weeds that you will have to battle. Sanitation means the removal of all dead plants and weeds and the preventative treatment of the garden with regular spraying to kill the pests before they become serious. Remember that pest and weed control should extend about 25 feet around the garden to reduce the spread of them to the garden. Don't Sprinkle—Irrigate.

Don't Sprinkle—Irrigate

What we are after is a long, slow soaking of the soil so that water penetrates to a depth of several inches.

Water should always be applied so that the roots will be lured downwards rather than upwards as is the case when only the surface is moistened. Properly done watering need not be repeated oftener than once or twice a week.

In all the world, NO FINER FLOWER SEEDS THAN OURS!



PETUNIA, All Double

You may search the land over, but you cannot find flower seeds any better than those we sell! We can give you this absolute assurance because we sell only the tested seeds of the best growers . . . and we always make sure they are fresh, new crop seeds.



MARIGOLD, Sunkist



COSMOS, Dazzler



LARKSPUR, Ruby



PETUNIA, Glow

GARDEN SUPPLIES

BIRD HOUSES AND FEEDERS

Window Bird Feeders—Provides an opportunity to study your bird companions from your window. Ideal for shut-ins and a real companionship for any bird lover. **Bird Houses**—A great deal of pleasure can be derived from the birds that will be attracted to your yard by putting out a bird house or two. We carry many types and styles for bird lovers to choose from.

WILD BIRD SEED MIXTURE

Feed your feathered friends the year round with this tempting mixture. All types of wild birds relish this seed. Don't forget to give them plenty in the winter months.

GARDEN GLOVES

Garden Gloves—Protect your hands—wear gloves in your garden! Canvas or leather, in sizes for men and women.

\$2.40
THE DOZEN

In cartons of two dozen
(makes 24 feet of fence)

Easy to hammer
into hard ground
21" High, 12" Wide,
1/4" steel enameled green

HOTKAPS



yield 18% to 51%.
25, only 70c. Setter free.

Patented individual hot-houses protect seedlings, young plants during critical period of root establishment against FROST, HOT SUN, STORMS, INSECTS. Hotkaps ripen plants 3 weeks earlier, increase GARDEN PACKET of

250, 4-inch size 35c; box of 125, 8-inch size 35c; box of 125, 16-inch size, 65c.

TWIST-EMS



Ideal support for SWEET PEAS, GARDEN PEAS, POLE BEANS, CUCUMBERS, TOMATOES. Hung in 5 minutes. Doesn't rot like string, nor burn tendrils like wire. 3

sizes—60-inch x 72-inch, 65c; 60-inch x 96-inch, 85c; 60-inch x 180-inch, \$1.25.
NS



GARDEN HOSE
VISIT OUR STORE for our newest offerings. Garden hose is now available in good quality and quantity.

LABELS

Pot or Garden Labels (Wooden)—Used for marking plants in pots or seed flats.

4 in.	65c per 100
6 in.	80c per 100
12 in.	\$1.95 per 100

Wood Tree Labels, Wired, Painted wooden labels equipped with wires, for marking trees or shrubs; also used extensively for labeling dahlia tubers.

100	1000
\$0.75	\$4.35

PLANT BANDS

Square bands hold almost twice the number of plants as round pots of the same size. 2 in. size, packet of 30, 25c. (Ask for prices on larger sizes and quantities.)

PLANT SUPPORTS

Bamboo Stakes—Green, pencil thickness. Per 100 Per 1000

2 ft.	\$1.50	\$ 8.50
3 ft.	1.95	12.25
4 ft.	2.50	15.95

Dahlia or Garden Stakes—Wooden—Painted green. Strong and durable. Almost rot-proof. Will last several seasons. For supporting dahlias, young trees, etc.

Doz.	100
4 ft.	\$2.15
5 ft.	2.75
6 ft.	3.25
	22.50

POTS AND SAUCERS

Standard Earthen Flower Pots. Many sizes, from 2½ in. to 12 in. diameter.

Earthen Flower Pot Saucers, 3 in. to 12 in.

Red Paper Pots. Excellent for growing seedlings or for packing plants for shipment. 2½ in. to 6 in. diameter.

TYING MATERIALS

Raffia, Natural. A palm-fibre used for tying plants, bunching vegetables, weaving, and basketry. ½-lb. pkg. 65c. In. braids (uneven weights) just as pulled from the bale, 90c per lb.



You will love it - properly distributed seed goes twice as far - saves thinning. For peas to petunias. Cork of 6½" x 1" plastic tube pivots in palm - tap gently. SATISFACTION GUARANTEED. Prepaid



Kill dandelions and other unsightly weeds without stooping or digging. Simply touch lightly with the capillary applicator of the 33" x 1" plastic WAND. Weighs 15 oz. when filled with 2,4D—the marvel weed-killing hormone, \$1. for the WEED-WAND. Additional \$1. buys 48 fills of 2,4D WEED-WALLOP—enough to kill 100,000 weeds. Kills only the weeds you touch. SATISFACTION GUARANTEED

Protect your Garden and Fruit with

SCARE-AWAY

the Modern Scarecrow



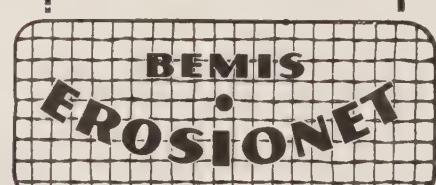
Completely new way to scare away birds, animals. Flashes of reflected light and the crackle and rattle of shiny, bright aluminum drives out the pests! Amazingly effective—and so easy to hang among plants, trees, shrubs—wherever you need protection. (Made by Donax Co., Portland, Ore.)

25c per package of 10
4 pkgs. postpaid, \$1.

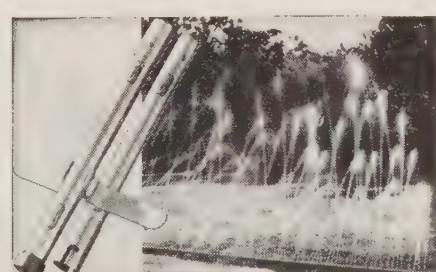
Self-WATERING

The NEW LOOK in Flower Pots

Protect your newly seeded lawn with



A strong, economical open-mesh fabric for use in making lawns and terraces. Prevents soil and seed from washing away.



From 2-inch trickle to 25-foot spray, at will! April showers anytime of year—with this marvelous new method for watering lawns and gardens. No constant shifting . . . no water waste. Connects in a jiffy. Comes in 5 foot units, weight only 12 oz. Use 5 ft. to 30 ft. according to size of your garden. Primary unit, \$2.95; extension units \$2.75 each.

How? When?

PLANT FEEDING

Where? Why?

As every gardener knows, good seed alone can't make a successful garden. No matter how good the seed, it needs proper feeding. Like any living thing, it must be nourished.

As seedsmen, we do everything in our power to bring you the finest of seeds. We select seeds with the right heritage, with the inborn qualities that are needed to win out in the battle every growing thing must fight.

But once our good seed is in your hands, the rest is up to you! So—in your plans to get the best possible results from our good seed, consider carefully the information on plant feeding which we give you here.

Actually, plant feeding nowadays is a rather simple, easy job. While plants need many different elements of food for best growth, all these elements can be provided by one complete balanced plant food such as Vigoro. Without odor or muss, the modern balanced plant food takes care of all the usual plant needs of the garden—and does it inexpensively.

As to the questions of "how, when, where and why"—most of the information you need can be told in a few words. The basic routine of plant feeding for the home garden and lawn is this:

For LAWNS:

Follow these 3 steps . . .

1. Check to see that grass is dry!
2. Apply evenly 4 pounds of complete plant food per 100 feet of area, either with a spreader or by hand.
3. Soak the plant food into the ground immediately after applying.

If water is not available merely work the plant food off blades of grass with back of rake. NOTE: If plant food is applied early, before growth starts, steps 1 and 3 do not apply. Early thaws and spring rains work the plant food into the soil.

For FLOWERS, VEGETABLES, BERRIES . . .

Apply complete plant food at the rate of 4 pounds per 100 square feet of area before seeding or setting plants. For established perennials apply around plants or along both sides of row early in Spring and at six to eight week intervals.

For TREES . . .

Make a series of holes 12 to 18 inches deep with a 2" soil auger or a pointed stick under the drip of the branches. Figure the plant food need per tree by measuring diameter four feet from the ground and allowing 3 pounds of complete plant food per inch of diameter. Fill holes with a

mixture of half plant food and half soil or sand.

* * *

As to your choice of plant food:

We recommend VIGORO because of its unexcelled balance and its long record of unfailing reliability.

New gardening aids by the makers of Vigoro

Gardeners in our area are getting a lot of help from two other gardening aids now presented by Swift & Company, the makers of Vigoro.

These new essentials are EndoPest and EndoWeed.

EndoPest provides the wide range of protection most gardens need against chewing insects, sucking insects and fungus disease. It comes ready to use in a patented dust gun package. Also available in large economical packages for use in standard dust guns.

EndoWeed is improved selective lawn weed killer. It kills over 100 weeds, roots and all. And it is easy to apply with the new EndoWeed Side Spray that applies diluted EndoWeed to the side while you walk. No pumping . . . no wet feet. Ask us about these valuable gardening aids. You'll find them a real help in making your gardening easier—and more successful.

VIGORO...complete, balanced plant food

Develops humus in lawn soil!

Vigoro helps develop large root systems. Each year as part of the old roots decay, humus (organic matter) forms in the soil . . . dark, fertile! Your soil becomes more capable of sustaining your lawn through every season . . . a better storehouse for moisture and plant food.



Nourishes the whole plant!

Vigoro extends its benefits to blooms, stems, and roots. Gives good color to foliage—promotes quick growth and makes roots strong. It also strengthens stems, increases size and heightens color of blooms—promotes better general health of plants.



PLANT FOODS and SOIL CONDITIONERS

ALUMINUM SULPHATE—Used in creating acid soils needed for successful culture of Azaleas, Rhododendrons, etc.

BONE MEAL—All-purpose fertilizer, rich in nitrogen and phosphoric acid.

COW MANURE—Fine and dry. Absolutely weedless. Builds up soil and feeds plants in nature's way.

DRICONURE—All-organic fertilizer with a peat-moss base, impregnated with a high grade manure. Economical, safe.

FRUITONE—The remarkable hormone spray that stops pre-harvest drop of fruit. Sprayed on flowers of tomatoes it makes a high percentage of the crop **SEEDLESS!** Also beneficial on beans and on flowers.

HORMODIN POWDER—A powerful help for transplants and root cuttings. Use it on house, garden, and greenhouse plants, shrubs, evergreens.

HY-GRO—Extra-highly concentrated plant food, quickly soluble in water. Excellent starter solution and all-around fertilizer.

HYPONEX PLANT FOOD—Can be used in dry or liquid form; teaspoonful makes 1 gallon. Contains Vitamin B1.

LIME (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination of many insecticides; for whitewash, deodorizing.

NITRATE OF SODA—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

LEGUME INOCULATION

Just as necessary for garden peas and beans, lima beans, sweet peas and lupines as for alfalfa, clover, etc. The nitrogen-gathering bacteria build up the soil, increase your yields. Inoculation is the cheapest form of crop insurance. Packages from the 15c garden size up to 5-bushel size.

HY-GRO SOLUBLE PLANT FOOD

(13-26-13)

For flowers,
potted plants,
vegetables and lawns

Brings a balanced diet right to the roots. Use according to directions on package for starter solution and transplanting. Easy to use.

3 oz. . . 25¢—20 oz. . . \$1.00
—10 lb. . . \$4.00. Also in 25,
50 and 100-lb. sizes for es-
tates and larger growers.

Ask for
FREE booklet

A PRODUCT OF MCCORMICK & CO.

Baltimore 2, Md.

NO-SEED—Hormone spray. Prevents blossom-drop on Tomatoes, greatly increasing crop. Also causes high percentage of seedless fruit.

PEAT MOSS—Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc. When incorporated in the soil, it promotes growth and supplies humus.

PLANTABBS—Clean, white odorless plant food tablets for indoor or outdoor use.

ROOTONE—You can help cuttings to root faster by dipping them in this hormone powder before planting.

ROSETONE—New hormone product designed to reduce loss in transplanting rose bushes and to make them develop better root systems.

ROSE FOOD—A balanced combination of organic ingredients, selected for the particular "make-up" and sequence availability that roses need. Improves the color and size of your roses.

SHEEP MANURE—An economical and effective balanced plant food. Weed-free and rapid in its action. Supplies an abundance of humus and all the essential plant-food elements.

SUDSBURY SOIL SWEETENER—New scientific way to sweeten soil. Raises pH right away. 1 qt. sweetens soil as much as 20 lbs. of lime.

SUDSBURY SOIL SOURING SOLUTION—Makes soil acid.

SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa.

TERRA-LITE (VERMICULITE)—Use as mulch to protect plants during winter; doesn't mat down or become soggy. In Spring, work it around base of plants as soil conditioner. Unexcelled growing medium for flats; aids seed germination, speeds root development. Also excellent for storing root crops and bulbs.

TRANSPLANTONE—New Vitamin-Hormone stimulant effective in reducing transplant shock, and wilt of all kinds of plants or shrubs. Also effective in bringing about earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage.

VIGORO—The complete plant food. Supplies all the elements growing things need from the soil. Because it offers such complete nourishment, Vigoro helps produce greater yields of finer flavored, more nutritious vegetables. Produces lovelier lawns and flowers. Clean and odorless.

TEST YOUR SOIL! SUDSBURY SOIL TEST KITS

Jr. Professional Model

Raise finer flowers and vegetables—the fancier's guide to prize-winning blooms. Shows kinds and amounts of fertilizers your soil needs—also whether lime is needed (pH) and how much. Easy-to-use . . . no knowledge of chemistry needed. Complete equipment, instructions and solutions for 50 tests for nitrogen, phosphorus, potash, acidity. Only \$2.50

Home Garden Model—Makes 20 tests. \$12.50
Horticultural Model—Makes 150 tests. \$12.50
DeLuxe Professional Model—Most economical to use. Lifetime hardwood chest.
\$22.50

Terra-Lite* Vermiculite

Every gardening publication has discussed the fabulous results of Terra-Lite vermiculite. Surpasses anything you've ever used.

Buy a bag of Terra-Lite and you'll find many uses for it. Holds plenty of water, never shuts out air. Sterile too, no harmful weed-seeds, nothing to burn up or injure plants. Use Terra-Lite for:

- Starting seeds ● Putting in new lawns
- Rooting cuttings ● Transplanting
- Storing bulbs ● Mulching
- Lightening heavy soil

It's a year 'round gardening helper to you, in all these ways and many more. Complete instructions on every bag.

"All thru the year"

*Terra-Lite is the registered trade mark of Zonolite Company.

LOVELY FLOWERS VELVETY LAWNS

**Easy when you fertilize with
DRICONURE**

This 100% all-organic fertilizer and soil improver helps you grow better flowers, vegetables and lawns. Economical, safe, easy to use. In 50 lb. bags (approximately 2 bushels). Order a supply today.



HY-PONEX PLANT FOOD

Grows bigger, better house plants, flowers, vegetables, lawns, and trees in poorest soil—even in sand, cinders or water. Results sure. Doesn't burn. Clean, odorless, soluble powder. 1 oz. makes 6 gallons.

Retail	
1 oz. pkt. (packed 72 to case)	10c
3 oz. can (packed 36 to case)	25c
7 oz. can (packed 24 to case)	50c
1 lb. can (packed 12 to case)	\$1.00
10 lb. drum, makes 1000 gals.	8.00
25 lb. drum, makes 2500 gals.	15.00
50 lb. drum, makes 5000 gals.	25.00
100 lb. drum, makes 10,000 gals.	40.00

**PLANTABBS help grow
better potted
plants, flowers,
vegetables**

Feed them PLANTABBS. If you don't get lovelier plants and flowers, and a greater yield of fine vegetables, you get your money back.

PLANTABBS are clean, odorless, highly concentrated **PLANT FOOD TABLETS** which help produce sturdy stems, luxuriant leaves, strong roots and gorgeous blooms. 25c, 50c, \$1.00 & \$3.50 size boxes.

**Fulton's
PLANTABBS**
PLANT FOOD TABLETS PLUS B1

How . . . When . . . Where in INSECT CONTROL

A leading entomologist recently said, "Progress in the last three years in development of insecticides has been greater than in the previous fifty."

The great sensation of the insecticide field has, of course, been DDT. It can now be said that DDT has fully lived up to its early promise of help for the home gardener. It has rightly been credited with miraculous results in many serious situations.

However, it must be remembered that DDT is not a cure-all. No single insecticide can ever take care of every situation.

Chlordane, the new wonder

Now comes another widely heralded new chemical miracle for the gardener—chlordane (also known as 1068). And again the results are living up to the early promises. Chlordane must now be recognized as a great new weapon in the battle with the insects.

But chlordane, like DDT, is not a cure-all. Remember, therefore, to consider it as just one more tool for the gardener—a highly valuable tool, but not a universal remedy.

What will chlordane do?

It is highly effective against grasshoppers and the American cockroach, Colorado potato beetle, squash bug, and some aphids. It is very effective on ant nests. It is the fastest working chemical yet found against Japanese beetle grubs in soil, killing 2½ times faster than DDT.

Further experience probably will increase the list of victories for Chlordane.

Meanwhile, we suggest that you begin to use this newcomer, while keeping on with DDT for the purposes it serves best.



Identify your insects!

Another page of this book gives you some full color portraits of common insects. For further help in identifying and classifying the job that confronts you, remember fundamental facts:

Types of insects

Biting or Chewing insects such as beetles, caterpillars, grasshoppers, and the like, can best be controlled by the application of poisons to the plants upon which they feed.

Sucking Insects such as aphids, weevils, leaf hoppers, etc., insert their beaks into the leaves, stems or fruits and suck the plant juices. Hence "stomach" poisons applied to the surface of the plant will not kill them. They must be killed by use of contact poisons.

Scale Insects that develop protective coverings are most easily killed by strong corrosive solutions, such as a concentrated lime-sulphur mixture, applied during late fall or winter when foliage is off the plants—and by other materials.



IF YOU'RE NOT SURE WHICH REMEDY IS THE RIGHT ONE, CONSULT US. IT'S OUR JOB TO SEE THAT YOU ARE PROPERLY ARMED FOR YOUR BATTLE AGAINST INSECTS & PLANT DISEASES.

INSECTICIDES & FUNGICIDES

ANTROL ANT TRAPS—Kills both sweet and grease eating ants.

ARSENATE OF LEAD—Controls practically all leaf-eating or chewing insects.

BLACK LEAF 40—Nicotine Sulphate 40% solution for controlling aphids (plants lice), thrip and soft bodied sucking insects.

BLACK LEAF 40 MOSQUITO-FUMER—New outdoor mosquito killer. Effective "smoke aerosol" deadly to mosquitoes.

BULB PROTECT—Repels moles, mice, wards off fungus diseases from bulbs in ground.

CALCIUM ARSENTE—Cheap quick-acting poison for potato bugs; leaf-eating insects.

BORDEAUX MIXTURE—Standard copper insecticide for controlling black spot, mildew, blight, other fungus diseases.

CERESAN—Controls covered smut and stripe of barley, oat smuts, and bunt or stinking smut of wheat.

CRO-TOX—Protects all smooth surface seeds from birds and rodents during germinating, sprouting, rooting stages.

DU PONT FLORAL DUST—Contains methoxychlor, and rotenone. Especially recommended for rose disease control; protection against insects.

D X SPRAY—Economical spray for both sucking and chewing insects. Harmless to human beings.

LINCK W.A.—Wetting agent. Mix with any concentrated spray to produce better wetting, greater spreading. Mixes readily in cold, hard and salt water; does not react chemically with spray materials.

LIME SULPHUR, Liquid—A dormant spray material against scale of all kinds.

LIME SULPHUR, Dry—A dormant spray to kill scale or use as a summer spray for control of fungus disease.

MILDEW SPRAY—Strong liquid spray for control of mildew, leaf spot and black spot on rose bushes, flowers.

MO-GO—Kills moles and gophers. Just place in runs. Results guaranteed.

DU PONT FLORAL DUST

KEEPS BUGS AND BLIGHTS OFF FLOWERS



One product does the work of several—gives flowers, especially roses and fruit trees effective protection against many insects and diseases. Applied every week or two, you get season-long freedom from Jap beetles, aphids, caterpillars and other insects. Also controls mildew, black spot on roses, blights and other diseases. Contains two insecticides—methoxychlor, powerful as DDT but harmless to plants, and rotenone. For disease control, sulfur and "Fermate" fungicide—recommended in the famous Massey formula for rose disease control. 8-oz. dust gun \$.79; 1-lb. sifter-top can, \$1.15; 4-lb. canister, \$3.50.

DU PONT GARDEN DUST PROTECTS YOUR VEGETABLES

All-purpose combination of insecticides and fungicides. Applied every week or two, you get season-long protection against Jap beetles, bean beetles, corn borers, tomato worms and other insects. Also controls blights, leaf spots and other plant diseases. Especially formulated by Du Pont laboratories for effective garden protection. Du Pont Garden Dust contains two insecticides, rotenone and DDT; two fungicides, "Fermate" and "Zerlate." Dust on, or apply as a spray. 8-oz. dust gun, \$.79; 1-lb. sifter-top can, \$1.15; 4-lb. canister, \$3.50.



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

RED ARROW

GARDEN SPRAY



Non-poisonous. Kills most chewing and sucking insects quickly, safely. 1 oz. makes several gallons of spray.

1 oz. .35¢; 4 oz. . \$1.00; Pint. . \$2.85

Ask for free booklet
How to Fight Garden Insects

A PRODUCT OF McCORMICK & CO.
Baltimore 2, Md.

RED ARROW

AGRICULTURAL

DUST



¾%
ROtenone!

Non-poisonous. Use as spray or wash for fruits, flowers, vegetables. Dust about every 10 days.

2 lb. . . 68¢—5 lb. . . \$1.55

A PRODUCT OF McCORMICK & CO.
Baltimore 2, Md.

PARIS GREEN—For control of chewing insects, particularly potato bugs.

PHYGON-XL FUNGICIDE—Seed protectant to be dusted on Beet, Tomato, Spinach, Peppers, etc. before planting to prevent seed decay and "damping-off".

RED ARROW GARDEN SPRAY—Contains Pyrethrum, Rotenone, Soap. Harmless to animals.

RED ARROW DUST—Use as spray or wash for fruits, flowers, vegetables.

TAT ANT TRAPS—Excellent for household use. Attracts both sweet and grease-eating ants who carry bait back to nest.

TAT CHLORO—Chlorinated hydrocarbon for use as spray or concentrated dust. Highly effective for control of grasshoppers, cabbage maggots, alfalfa weevil; chinchbugs, cutworms, etc. For household use, very effective on roaches, ants, etc.

SCALECIDE—Reliable spray for scale and soft-bodied sucking insects.

SEMESAN—Effective in controlling damping-off, scab, hard rot, etc.

SEMESAN BEL—For use on potatoes. Controls many seed-borne diseases.

SNAROL—An insecticide bait to combat snails, cut worms, sow bugs, grasshoppers.

SPERGON—Seed-treating material for controlling fungus diseases. Improves germination.

SULPHUR, DUSTING—For controlling powdery mildew, blight, black spot, rust and most rose diseases.

SULPHUR, WETTABLE—An improved sulphur which can also be used as a liquid spray.

SYNKLOR CHLORDANE INSECTICIDE—Controls ants, chinch bugs, grasshoppers, Japanese Beetles and many other insects; roaches, ticks and wire worms.

TAT ANT TRAP

KILLS ENTIRE NEST



Ideal for household use. Attracts both

sweet and grease-eating ants who carry bait back to wipe out entire nest. Metal container protects children, pets. Price 25c. ea.

MO-GO

KILLS MOLES & GOPHERS

Results guaranteed. Just place in runs. Large container (over 300 baits): \$1.00.



PROTECT your seeds with CROTOX

STOPS crows, pheasant, lark, starling, blackbirds, dove, squirrels, woodchucks, etc. from pulling or molesting seeds. Save seed and labor of replanting; prevent seed rot . . . with the original repellent used by leading growers everywhere.

1/2 pt. 60c TREATS 1 BU. SEED
1 pt. 1.00 TREATS 2 BU. SEED
1 qt. 1.75 TREATS 4 BU. SEED
1 gal. 4.50 TREATS 16 BU. SEED

BONIDE CHEMICAL CO., Utica, N. Y.
Since 1926

ALL

Endo Pest

ALL THE PROTECTION MOST GARDENS NEED!

EndoPest gives you 3-way control over most chewing insects, sucking insects and fungus diseases...with one easy-to-use product. No mixing, no muss...just a few quick strokes with the handy dust gun package protects a row of vegetables or bed of flowers. Use with confidence on edible fruits and vegetables.

MADE BY SWIFT
MAKERS OF VIGORO

SPRAY WITH Black Leaf 40



4832 Black Leaf Garden Dust protects gardens 3 ways: Kills chewing and sucking insects, and controls certain plant diseases.

Kills aphids and similar sucking insects. Kills by contact and by fumes. No burn. No stain. Also delouses poultry. Easily applied to roosts with handy Cap Brush.

Black Leaf Mosquito-fumer kills mosquitoes outdoors. Brings prompt relief.

Look for the Leaf on the Package

NEW PROTECTION FOR BULBS in the ground!

Bulb Protect repels moles, mice, wards off fungus diseases

Now your valuable bulbs can be protected—after planting—against ravages of moles, mice and fungus diseases. Just dust with BULB PROTECT before you plant! Also protects bulbs in storage. Combines two of the newest insecticides with two of the oldest repellents. Easy to use—and costs very little! 1 1/2 oz. pkt., 35c; 16 oz. \$1.75.



BULB PROTECT

BUG BLASTER

DUST & GUN... ALL-IN-ONE!

Protects flowers and vegetables from destructive insects and diseases. Contains multi-purpose insect and fungus dust . . . ready to use.

Bug Blaster, 3-ft. gun, contains 2 lb. of dust..... \$1.98
Bug Blaster Dust Refill, 2-lb. carton..... \$1.29
Bug Blaster Jr., for little gardens and boxes..... \$.69



PRODUCTS OF SHERWIN-WILLIAMS RESEARCH

SPERGON SEED PROTECTANT

A powder to be applied to seed before planting to prevent "Damping-off," particularly in cold wet weather. Recommended for Peas, Beans, Lima Beans, Corn and other seeds, it is easy to apply to the seed and noninjurious to the user. NON-TOXIC. 1 oz. envelope, 25c; 5 oz. container, \$1.00; 1 lb. container, \$2.25.

SPERGON GLADIOLUS DUST CONTROLS THRIPS AND CORM DECAY

A dust containing Spergon and DDT to be applied to corms before planting. May also be used on Tulips, Narcissus and Iris. 2 oz. envelope, 25c; 1 lb. container, \$1.50.

DUST SPRAY INSECTICIDE FUNGICIDE

An outstanding ready mixed formulation to simplify pest control. Used as a dust or spray. Recommended for Roses, Fruit Trees, Tomatoes and Beans. Contains PHYGON, SULPHUR, DDT AND ROTENONE. 1 lb. container, \$1.00; 5 lb. bag, \$4.00.

PHYGON-XL FUNGICIDE

Controls all leaf blights and fruit rot of Tomatoes, black spot of Roses, apple scab and many other plant diseases caused by fungi. A seed protectant to be dusted on Beet, Tomato, Spinach, Swiss Chard, Peppers and other seeds, before planting to prevent seed decay and "damping-off." 2 oz. can, 50c; 4 1/2 oz. container, \$1.00; 1 lb. container, \$2.70.

PHYGON ROSE DUST INSECTICIDE FUNGICIDE

A dust containing PHYGON, an outstanding fungicide for black spot and mildew control; also DDT for insect control. 1 lb. container, 75c; 5 lb. container, \$3.00.

SYNKLOR-50-W CHLORDANE INSECTICIDE

A dry wettable powder containing 50% technical chlordane. Controls ants, chinch bugs, grasshoppers, Japanese beetles, Japanese beetle grubs, mole crickets, roaches, ticks and wire worms. 8 oz. can, \$1.50; 1 lb. can, \$2.50.

SYNKLOR-48-E CHLORDANE INSECTICIDE

An emulsion containing 48% technical chlordane. Controls ants, chinch bugs, grasshoppers, Japanese beetles, Japanese beetle grubs, mole crickets, roaches, ticks and wire worms. Use three teaspoonfuls per gallon of water as a spray. 8 oz. bottle, \$1.25; 1 qt. bottle, \$4.00.

WEED KILLERS

AMMATE WEED KILLER—For control of poison ivy, ragweed, Canada thistle, other weeds. Do not use on lawns.

DU PONT LAWN WEED KILLER—Contains 15% 2,4D. Won't harm most common grasses.

END-O-WEED—Selective; kills over 100 weeds, roots and all.

NON-SELECTIVE WEED KILLER—A quick acting arsenical product that destroys weeds and all other vegetation. The proper killer for weeds in drive ways, tennis courts, paths, and all areas which must be kept free of plant growth. Creates a sterile soil condition for a long period.

TAT C-LECT—Selective crab grass killer. Safe on turf grasses.

WEEDONE—2,4D weed-killer. Kills weeds without killing grass.

WEEDUST—2,4D in powder form.

WEED-NO-MORE—Kills weeds but not the grass. Contains 2,4D.

MISCELLANEOUS

CHAPERONE, LIQUID—Outdoor dog repellent that won't dissolve in rain. Harmless, long lasting.

CHAPERONE, POWDER—Indoor dog repellent, that keep your dog off furniture. Almost odorless to humans. A fine help in training your dog.

DR. MERRICK'S SULFODENE—Amazing relief for dogs and cats tortured with skin itch. Apply externally.

PRUNING PAINT—A specially prepared liquid paint containing copper for treating wounds left by pruning, storms, or accidents, to prevent fungus diseases.



KILL SCALE! APHIS! RED MITE!

Spray your trees and shrubs with Scalecide, complete dormant spray. Give them a clean, healthy start for spring growth. 1 gal. makes 16 gals. spray.



Kill More Garden Insects With D-X

This non-poisonous spray kills both chewing and sucking insects on fruits, vegetables and flowers. Aphis, Leaf Hoppers, Red Spider, Tent Caterpillar, Mexican Bean Beetle, etc. Dilutes 1 to 400, economical.

PET SUPPLIES

Our supplies for your pets are selected with the same care as our seed selections. That's why you will always find this store A GOOD PLACE TO BUY PET SUPPLIES.

AMAZING RELIEF FOR ITCHING DOGS CATS

SULFODENE used externally stops summer eczema's itching in minutes; clears up scales and sores in a few days. Only \$1.00 for generous applicator tube.

EAR CANKER—Dr. Merrick's EAR CANKER Creme contains Tyrothrinicin; works swiftly to relieve pain, remove causes and aid healing of ear canker. Only \$1.00 in special applicator tube.

TAT C-LECT

KILLS CRABGRASS!

SAFE ON TURF GRASSES

Get rid of crabgrass this year and have an emerald lawn from Spring till snowfall! Start early, kill crabgrass and weeds simultaneously with TAT C-Lect, TAT Weed C-Lect combination. It's safe—it works—just follow directions.

TAT C-Lect: ½ pt., 85c;
1 pt., \$1.50; gal., \$9.75
Combination Package: \$2.25



ANTROL ANT TRAPS

Metal traps containing two types of material that attract and kill grease and sweet-eating ants.

Each 15c



SNAROL

Cutworm Bait

Non-injurious to vegetation. Attracts and kills cutworms, snails, slugs, sowbugs, earwigs.

1 lb., 35c;
2 1-2 lbs., 75c



ACME GARDEN DUSTS AND SPRAYS

DURADUST No. 50

Contains 50% Wettable DDT

The strongest, finest DDT powder science has yet been able to produce! Duradust No. 50 is toxic when eaten by the insect or when it comes in contact with the insect's legs or body. Its killing power endures. FOR CROP SPRAYING OR DUSTING—controls codling moth, oriental fruit moth, leaf hopper, flea beetle, psyllid, potato bug, potato aphid, plant bug, Jap beetle, cabbage worm, caterpillar, thrip, rose chafer, and many others. Suitable for all plants except vine crops. FOR LAWN SPRAY—controls, cutworms, ants, earwigs, sow bugs, chinch bugs. FOR WALL SPRAY—Most economical in barns, milk houses, hog sheds, etc. Also excellent FOR CATTLE SPRAY, DIP, OR DUST. 1 lb. 80c; 4 lbs., \$1.75; also available in 50 lb. bags.



ACME ROTENONE GARDEN GUARD

Controls the widest variety of chewing and sucking insects of any insecticide on the market today. Non injurious to humans, pets and animals. Use as dust or spray to control aphids, bean beetles, asparagus beetles, horn worm, tarnish plant bug, cabbage worms, current worms, rose caterpillars, blister beetles and other common insects. 1 lb. sifter, 50c; 1 lb. pump gun, 65c; also available in 4 lb. pkgs. and 50 lb. bags.



ACME ALL ROUND SPRAY

For roses, azaleas, other flowers, shrubs, vegetables, vines. A new, modern, carefully formulated multi-purpose product designed to provide with one application the best available protection against both insects and fungi such as rose chafer, azalea flower spot, thrip, black spot, downy mildew, leaf spot, many rusts, Japanese beetle, leaf-hopper, flea beetle, aphid, cabbage worm and many others. Suitable for dusting as well as spraying. 1 lb. Carton \$1.15; 4 lb. Carton \$3.75.

RED RIVER POTATO MIX

Contains 9.5% Wettable DDT, 15.1% Metallic Arsenic, 25.7% Metallic Copper. For years the recognized leader, now even better. Shows 25% and more increases in yield when compared to older methods in repeated tests. Controls all insects which eat the leaves, suck sap, irritate leaf surfaces or cause disease infection. Acts as a stomach poison and by contact. High copper content gives better blight prevention, produces green, healthy foliage. Use as spray or as dust. 1 lb. 58c; 4 lbs., \$1.90.



ACME TOMATO DUST

A general garden insecticide and fungicide with special emphasis on complete tomato protection. Controls early and late blight as well as horn worm, fruit worm and flea beetle on tomatoes as well as on cucumbers, beans, cabbage, potatoes and many flowers such as hollyhocks, asters, roses, azaleas, etc. 1 lb. sifter, 55c; 4 lb. pkg., \$1.25; also available in 50 lb. bags.



ACME GARDEN DURADUST

A ready-to-use dust for home gardens, contains 5% DDT and 9% metallic copper. Effective not only as a powerful insecticide but as a fungicide in control of many forms of blight and fungous diseases. Particularly effective on rose chafer, leaf hopper and corn ear worm. Dust or spray. 1 lb. sifter, 39c; 4 lb. bag, 85c.



ACME WETTABLE DUSTING SULPHUR

Controls mildew, leaf spot, black spot and rust on roses, chrysanthemums, snapdragons, carnations and other foliage and red spiders on evergreens. Use as a dust or spray. Also excellent as a chigger repellent. 2 lbs., 45c.



Spray Your LAWN and GARDEN with INSECT-O-GUN

Sprays

- INSECTICIDES
- FUNGICIDES
- WEED KILLERS
- FERTILIZER

Insect-O-Gun

... attaches to garden hose
... used by thousands everywhere
... Advertised in leading home and
garden magazines.

NO. 3 FULL 3-gal. capacity, \$5.95



The modern, easy INSECT CONTROL

Your garden hose is your insecticide sprayer, when you use an ARNOLD! Just attach this highly efficient mixing and spraying device in place of your regular hose nozzle—turn on water and spray anywhere from 3 to 25 feet. Cartridges fit into chamber and dissolve slowly, as water passes thru, giving you the correct control solution. No pumping, no guesswork. Thousands in use nationally. Sprayer, \$5.50; cartridges, 35c or 12 for \$4.00. A product of the Garden Hose Spray Co., Inc., Cambridge, Mass.)

How . . . When . . . Where on Garden Tools

Every gardener needs a good hoe, and preferably two. While the regular field hoe has millions of friends, the square top onion hoe will do more types of work, weighs less, and still do everything the field hoe will.

The steel shuffle hoe is a tool preferred by professional gardeners for weeding and mulching.

A matter of necessity

For deeper cultivation, the five-pronged garden cultivator with long handle will do practically everything a wheel hoe cultivator will, though not as rapidly. It is a tool every small gardener needs.

How long is a shovel?

Those who have not used the long-handled, round pointed shovel should try this tool. It gives greater leverage, can be used for shoveling loose soil, or for spading and turning over the soil.

Flat-head vs. bow end rakes

While more costly than the flat-head rake, the bow end rake is much more efficient. It has the weight balanced better, so it is easier to use.

Two trowels better than one!

A good trowel is an essential tool. A cheap trowel is money wasted; it will bend and break. If you have only one trowel, it should be wide enough to dig a good sized hole. If much transplanting is to be done, the narrow bladed trowel is useful.

GARDEN TOOLS

The next time you get into your tool shed or garage, or wherever you keep your garden tools, look them over! Try to remember how long it has been since you first brought them home. Then—if you want a real thrill—come into our store and see what the modern tool designers have done for you!

Here is a very brief outline of tools now available. But, better yet, come in and see for yourself.

CULTIVATORS, Speedy—4 sharp curved tines, 4 1/3 ft. handle.

Norcross—Adjustable steel teeth.

Hand Cultivator Weeder—3 or 5 prong.

FORKS, Spading—4 tines, D handle, light and heavy weight.

Hay Fork—Bent handle, 3 or 4 tines.

Hooks, Grass (Sickles)—Various styles, well balanced designs. Wood handles.

Potato Hooks—4 broad tines, tumbled.

SHEARS, Grass—Pinch-proof handles.

Hedge Shears—8 or 9 inch blades.

HOES, Field or Garden—Various styles.

Onion Hoe—Square top pattern.

Scuffle Hoe—8 inch blade; straight handle.

Warren Hoe—Pointed steel head.

KNIVES, Asparagus—10" with V-shaped point.

Budding, Propagating, and Pruning Knives. See our selection.

Edging Knife—Half-moon blade.

SCYTHES, Grass, Weed and Bush—Best crucible steel. Visit our display!

SHOVELS, Square Point—Long and D handles.

Round Point Shovel—Long D handle.

RAKES, Steel, Curved Tooth—Straight handles; teeth on head 1/4" thick.

Steel, Straight Tooth Rakes—Level head.

Wood Rakes—Rigid and strong.

Bamboo Rakes—Fan shaped, strongly made.

Steel-Broom-Rake—Flat, spring-steel teeth.

PRUNERS, Tree—8 ft., 10 ft., 12 ft.

Pruning Shears—Again available in several styles.

Flower Gathering Shears—They cut the stem and hold the flower for you.

SPADES, Square Point—Flat Blade, D handle.

TROWELS—All-Steel Garden—Made of one piece of rigid steel; shaped ventilated handle.

Transplanting Trowel—6" blade of solid steel.

WEEDERS, Hand—3 steel prongs; short handle.

Lawn Weeder—Curved forged-steel blade.

Weeder and Hoe Combined—A labor saver.

Dandelion Weeder—V-shaped design.

205 202 203 201 206



Famous MARKLE FEATHERLITE GARDEN TOOLS

Highest Quality—Lowest Prices

205—Claw Cultivator, 80c; 202—Transplanter, 70c; 203—Cultivating Fork, 75c;

207—5-piece matched set (1 ea. of 201, 202, 203, 205, 206) boxed, \$3.70

208—3-piece matched set (1 ea. of 201, 203, 205) boxed, \$2.30

204—3-piece matched set (1 ea. of 201, 202, 203) boxed, \$2.20

Planet Jr.

GET MORE JOBS DONE
WITH LESS EFFORT

No. 25 Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow.



This machine can do many jobs for you, quickly and efficiently.

Planet Jr. Single and Double Wheel Hoes have been designed by practical men to do the proper kind of work—the way you want it done.



Planting with a Planet Jr. Seeder has many advantages. The No. 35 Seeder Attachment is ideal for a small garden.



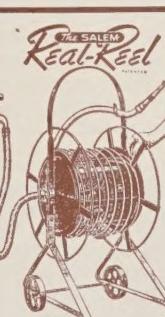
Miles of walk are edged with Planet Jr. Edgers. They do the work neatly and with minimum effort.

Planet Jr. products shown here are just a part of the complete line, including Garden Tractors and attachments.

S. L. ALLEN & CO., INC. PHILA. 40, PENNA.

The Modern Hose Reel

Permits use of whatever length of hose is desired without unreeling all of the hose to make connection to faucet. Increases life of hose, eliminates kinks and twists, convenient to use. All-metal construction. Holds 150 ft. of 5/8" hose. \$14.95



SALEM Fertilizer Spreaders

Designed for the even distribution of fertilizers, grass seed, and other granular materials. Salem Spreaders are of steel construction with reinforced hopper and feature both manual and automatic shut-off. All models equipped with selective feed control.



Width Cap. Price

16"	22 lbs	\$ 7.50
20"	40 lbs	11.50
30"	80 lbs	17.50
36"	125 lbs	35.50

WEED KILLERS

Our weed killer department, as usual, is keeping right up with the times. And that's saying a good deal, nowadays, when miraculous developments in weed killers are coming so fast.

Ever since the new selective weed killers began to appear, we have kept in close touch with leading authorities on this work. Therefore, we KNOW the new weed killers thoroughly, and can safely advise you about their use.

TWO DU PONT WEED KILLERS

1 "AMMATE"

Ammonium Sulfamate



One thorough treatment permanently kills roots and foliage of poison ivy, tree sprouts, brush, poison oak, sumac, ragweed and other woody perennials. Non-poisonous, therefore perfect for driveways, paths, walks, vacant lots, etc. Just mix with water and apply. DO NOT USE ON

LAWNS. 2-lb. bottle, \$.85; 6-lb. bottle, \$2.25. States west of and including Mont., Wyo., Colo., N. Mex., 2-lb. bot. 95¢; 6-lb. bot. \$2.55.

2 DU PONT LAWN WEED KILLER A 2,4-D PRODUCT

Keeps lawns free of dandelion, plantain, bindweed and almost every other broadleafweed. Selective, too...won't harm most common lawn grasses. Mix with water and apply. Cover entire lawn or just apply to weeds. Contains 15% ester of 2,4-D. Safe with humans and animals. Won't hurt soil. 8-oz. can, \$1.00.



DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

SPOT-KILL Lawn Weeds **WEEDUST** (TRADEMARK)

2,4-D in the ready-to-use can

Kill those here-and-there weeds in your lawn with Weedust—2,4-D in powder form. Just shake a pinch of Weedust directly on the weed from the can. No mixing or measuring or sprayer needed.

Large size can, 75c
Enough to kill 1,000 weeds

Kill Lawn Weeds **WEEDONE** the original 2,4-D weedkiller

Spray your lawn with Weedone. Grass is not affected, but dandelions, plantains and other noxious weeds curl, dry up and die. Weedone kills poison ivy, poison oak, bindweed and honeysuckle, too. Safe for people and pets. Does not corrode spray equipment.

Trial size can, 75c • Quart, \$2.50
Gallon, \$6.50 • Larger sizes on request

It's time to order **WEED-NO-MORE**

SPRAY AWAY UGLY LAWN WEEDS THIS EASIER, PROVEN WAY

This spring, get rid of dandelions and other ugly lawn-weeds. Just spray on Weed-No-More... Weeds die, roots and all! Have a beautiful, weed-free lawn to be proud of.

8 oz., makes 8 gallons, \$1.00
enough for average lawn...

Economy qt., makes 32 gal...\$2.98

WEED-NO-MORE SPRAYER—fits any gal. or $\frac{1}{2}$ -gal. glass jug. Built-in measuring device included! Only 39¢



USE EndoWeed to Spray WEEDS AWAY!

- Rid your lawn of weeds with EndoWeed, selective lawn weed control! Kills 'em roots and all. Easy, economical to use.

Presented
by
Swift...



HORMONE PREPARATIONS

Gardeners who are "in the know" wouldn't dream of trying to garden without the help of the various hormone preparations now available to them!

Garden hormone materials make seedlings grow better, make transplanting easier, help plant growth in many ways. They also prevent blossom-drop, make tomatoes solider, more nearly seedless, and keep fruit of any kinds from dropping prematurely.

FASTER, SURER ROOTING for cuttings, seeds and bulbs

ROOTONE®

the plant hormone powder

Rootone stimulates the natural tendency of seeds, cuttings and bulbs to put out roots. Rooting is faster and heavier, resulting in bigger, earlier plants. Endorsed and used by leading growers everywhere.

Trial packet, 25c • 2-oz. package, \$1
1-lb. can, \$5

TRANSPLANT SAFELY

TRANSPLANTONE®

Transplantone reduces shock and wilt when seedlings and plants are moved. Stimulates root growth so that fewer seedlings die and more come to early, healthy maturity. Used to water plants, shrubs and trees, Transplantone encourages growth and bloom.

1/2-oz. packet, 25c • 3-oz. package, \$1
1-lb. can, \$4

MORE TOMATOES!

FRUITONE®

Spray Fruitone at blossoming time and each plant will set more fruit and bear more big, meaty tomatoes. Spray Fruitone for bigger crops of beans and lima beans, too. The dollar package makes 25 gallons of spray.

2/5 oz. packet, 25c • 2-oz. package, \$1
12-oz. can, \$5

LOVELIER ROSES



(TRADEMARK)

Before setting out rose bushes, soak bare-rooted plants in Rosetone solution. Also water established plants with Rosetone. Plants take hold quickly and bear finer, earlier roses. Indispensable for the rose enthusiast.

½-ounce package, 25¢
3-ounce can, \$1

NO-SEED HORMONE

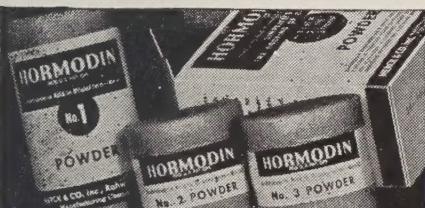
Blossom-Set for Tomatoes

MORE EARLIER SEEDLESS
LARGER... MEATIER... TASTIER



Also effective on Peppers,
Cucumbers, Egg Plant, Squash
JUST SPRAY THE BLOSSOMS

Keeps blossoms from falling... produces ripe tomatoes weeks earlier... greater yield... better tasting... SEEDLESS. Increases yield on beans, berries, too. TESTED and PROVED by Universities and Experiment Stations. 2 Oz. (makes ½ gal.) 60¢; 4 Oz., \$1.00; 1 pt., \$2.50; ½ gal., \$7.50.



ROOT CUTTINGS WITH HORMODIN POWDER

Reg. U. S. Pat. Off.

This Hormone Powder produces better roots—faster! Simply dip moistened stems in Hormodin Powder and place in usual propagating medium. For house, garden, and greenhouse plants use Hormodin Powder No. 1; also available as Powder No. 2 for woody types and Powder No. 3 for evergreens.

Combination Package 75¢



Easy to Use... Efficient

SPRAYERS and DUSTERS

HUDSON "SIMPLEX" PERFECTION

The Higher the Pressure, the Tighter the Seal

Simplest, safest, most dependable compression sprayer ever made. Cover seals from inside of tank... pressure provides positive leak-proof seal. Holds 4 gallons. All welded tank. All angle nozzle. Extra wide carrying straps with 3" x 10" pad. **HUDSON CLIMAX**, same advanced design but 3½ gallon tank, regular straps, fixed angle nozzle. **HUDSON CLIMAX JR.**, same as Climax except 2½ gallon capacity.



No Weeds—No Work

HUDSON 2, 4-D SPRAYER

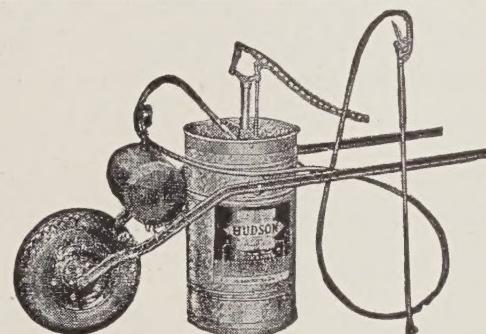
Just fill tank with weed-killer solution—pump up—open valve—and push sprayer across lawn. Sprays 24-inch swath. Ideal for liquid fertilizer too. Copper tank. Chemical-proof hose. Two models—3½ and 2½ gallons.



Big Value At Low Cost

HUDSON Funnel-Top LEADER

Premium quality materials and workmanship. Funnel-top for easy filling. Holds 3½ gallons. Large powerful pump. Valve locks open for continuous spraying.



HUDSON Sunshine Porta-Sprayer

Compact, perfectly balanced, powerful sprayer. Provides 250 lbs. pressure. Use for all spraying work. 12½ gallon tank... non-clogging agitator on strainer. With or without pressure tank... with pneumatic, cushion or steel wheel.



HUDSON ADMIRAL DUSTER

Large capacity, long reach, powerful blast. Directional nozzle. Discharges just a puff or a blast at will. Easy to fill. A "must" in every garden and home.

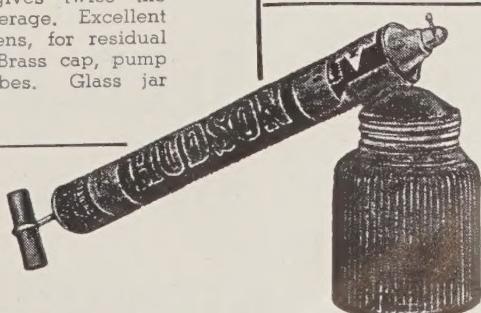


HUDSON HOMESTEAD SPRAYER

Double-tube nozzle gives twice the spray, twice the coverage. Excellent for small home gardens, for residual spraying anywhere. Brass cap, pump end and siphon tubes. Glass jar holds 24 oz.

ASK US

about other sprayers
for garden, home,
farm orchard and
other uses.



HUDSON CRITIC SPRAYER

A flick of the nozzle pin gives fine mist or wet residual spray. Glass jar holds 24 oz. Same principle also in **HUDSON MERCURY** with heavy tinplate container.

SURROUND YOUR HOME WITH BEAUTY

*Here's the way to lawn results
you can **REALLY SEE!***

The whole beauty of your home and garden depends on a good lawn. But making and maintaining a lawn may be a costly and unsatisfactory task unless the proper "know-how" is included.

Only someone familiar with your own local conditions can supply the needed information for your special problems.

Here in our store we give you the benefit of years of experience with many lawns and the supply of correct seeds, plant foods, weedicides, and equipment for best results here in your local conditions.

"Know-how" is the unseen ingredient that produces the results you can really see. And we have that know-how!

**CARL MANGELSDORF
SEED STORE**

725 Commercial St.

ATCHISON, KAN.



**LAWN
TROUBLES?
CONSULT
US!**